

SAFETYDATASHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Five color TSA Detect Kit for Rabbit/Mouse Primary Antibody

Catalog Number: PK10034

Component Name: Tyramide Reagent, Amplification Buffer

Company/undertaking Identification:

Proteintech Group, Inc

5500 Pearl Street

Suite 400

Rosemont, IL 60018

312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Flammable liquids	Category 3
Acute toxicity, Oral	Category 5
Acute toxicity, Inhalation	Category 4
Acute toxicity, Dermal	Category 4
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1B

GHS label elements

Signal Word: Danger

Hazard pictograms:



Health hazards:

H303-May be harmful if swallowed.

H332-Harmful if inhaled.

H312-Harmful in contact with skin.

H319-Causes serious eye irritation.

H360-May damage fertility or the unborn child.

Physical hazards: H226-Flammable liquid and vapor.

Environmental hazards: Not Hazardous

Hazard Statements:

H226-Flammable liquid and vapor.

H303-May be harmful if swallowed.

H312 + H332-Harmful in contact with skin or if inhaled.

H319-Causes serious eye irritation.

H360-May damage fertility or the unborn child.

Precautionary Statements

Prevention:

P201-Obtain special instructions before use.

P202-Do not handle until all safety precautions have been read and understood.

P210-Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233-Keep container tightly closed.

P240-Ground/bond container and receiving equipment.

P241-Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242-Use only non-sparking tools.

P243-Take precautionary measures against static discharge.

P261-Avoid breathing mist or vapors.

P264-Wash skin thoroughly after handling.

P271-Use only outdoors or in a well-ventilated area.

P280-Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312-Call a POISON CENTER/ doctor if you feel unwell.

P337 + P313-If eye irritation persists: Get medical advice/ attention.

P370 + P378-In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235-Store in a well-ventilated place. Keep cool.

P405-Store locked up.

Disposal: P501-Dispose of contents/ container to an approved waste disposal plant.

Other hazards: Rapidly absorbed through skin.

3. INGREDIENT COMPOSITION/INFORMATION:

Tyramide Reagent:

Chemical Name	Concentration(% , w/w)	CAS.NO.
DMSO	50%	Cas# 67-68-5
DMF	50%	Cas# 68-12-2
Dye	<0.01%	/

Amplification buffer:

Chemical Name	Concentration(% , w/w)	CAS.NO.
PEG	<2%	Cas# 25322-68-3
Sodium diphosphate	<0.5%	Cas# 7722-88-5
H ₂ O ₂	<0.01%	Cas# 7722-84-1
NaCl	0.8%	Cas# 7647-14-5
Tris hydrochloride	<2%	Cas# 1185-53-1
Proclin-300	0.1%	Cas# 96118-96-6

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, light headedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available.

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters:

Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing.

Wear appropriate protective clothing (Section 8). Keep container tightly closed, and in a cool, well-ventilated area. Store at -20°C. Avoid repeated thawing and freezing.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product. Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles.

Hands: Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Clear liquid

Odor: None

Melting point/melting range: Untested

Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested

Decomposition temperature: Untested

Evaporation rate: Untested

Flammability: Untested

Upper explosion limit: Untested

Lower explosion limit: Untested

Vapor pressure: Untested

Relative density: Untested

Specific gravity: Untested

Solubility: Untested

Partition coefficient: Untested

Explosive properties: Untested

10. CHEMICAL STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: None reported

FOR LAB RESEARCH USE ONLY NOT FOR USE IN HUMANS OR ANIMALS

Conditions to avoid: No information available

Incompatible materials: No dangerous reaction known

Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION:

Acute toxicity:

DMSO: Oral Rat, LD50, 28,300 mg/kg

DMF: Oral Rat, LD50, 3,010 mg/kg

Sodium diphosphate: Oral Rat, LD50, 4000 mg/kg

H₂O₂: Oral Rat, LD50, 1518 mg/kg

NaCl: Oral Rat, LD50, 3,000 mg/kg

Tris hydrochloride: Oral Rat, LD50, 5,900 mg/kg

Proclin-300: Oral Rat, LD50, 862 mg/kg

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation

Skin contact: May cause irritation

Ingestion: May be harmful if swallowed

Carcinogenic effects: Not available

Mutagenic effects: Not available

Reproductive toxicity: Not available

STOT - Single exposure: Not available

STOT - Repeated exposure: Not available

Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations

TSCA Inventory: DMSO, DMF

SARA 313: DMF

Clean Air Act, Section 112 Hazardous Air Pollutants: This product does not contain HAPs.

US State Regulations

California Proposition 65: DMF

WHMIS Hazard Class:

DMSO, flammable liquid

DMF, Toxic (irritant), flammable liquid

16. OTHER INFORMATION:

Reason for revision: SDS sections update

Revision number: 0

Revision: 08/26/2025

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product.

For lab use only, not for diagnostic or therapeutic work.

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SAFETY DATA SHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Five color TSA Detect Kit for Rabbit/Mouse Primary Antibody

Catalog Number: PK10034

Component Name: Quenching Buffer

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

Proteintech Group, Inc
5500 Pearl Street
Suite 400
Rosemont, IL 60018
312-455-8498
Emergency telephone number:
312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

GHS Classification of the substance or mixture

Short-term (acute) aquatic hazard (Category 3), H402

GHS label elements

Signal Word: None

Hazard pictograms: None

Hazard Statements:

H402-Harmful to aquatic life

Precautionary Statements

P304+P340+P312-If INHALED: Remove person to fresh air and keep comfortable. Call a poison center or doctor if not feeling well.

P314-Get medical advice/attention if you feel unwell.

P501-Dispose of contents/container to an approved waste disposal plant.

P273 -Avoid release to the environment.

P264-Wash hands thoroughly after handling.

P280-Wear protective gloves/protective clothing/eye protection/face protection.

P362-Take off contaminated clothing.

P302+P352-IF ON SKIN: wash with plenty of water.

P332+P313-IF SKIN irritation occurs: Get medical advice/attention.

P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do-continue rinsing.

P337+P313-IF eye irritation persists: Get medical advice/attention.

Hazards not otherwise classified: None known.

3. INGREDIENT COMPOSITION/INFORMATION:

Chemical Name	Concentration(%, w/w)	CAS.NO.
H ₂ O ₂	3%	Cas# 7722-84-1

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give water

to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed

Potential acute health effects

Skin contact: May cause sensitization of susceptible persons.

Over-exposure signs/symptoms

Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure

Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11).

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: No information available

Specific hazards arising from the chemical: In a fire or if heated, a pressure increase will occur, and the container may burst.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency

contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes, and clothing. Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a cool, well-ventilated area. Store at 4°C.

Precautions for safe handling: Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store above the following temperature: +2°C to +8°C. Store in accordance with local regulations. Store in original container protected from light in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS/PPE:

Control parameters:

Occupational exposure limits: 1.5 mg/m³

Basin: Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures: Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection:

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES:

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Physical state @ 40°C: Solution

Color: clear to amber

Odor: Not available.

Odor threshold: Not available.

pH: Not available.

Melting point: Not available.

Boiling point: Not available.

Flash point: Not available.

Burning time: Not applicable.

Burning rate: Not applicable.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: 0.67 kPa at 30 °C.

Vapor density: Not available.

Relative density: Not available. Solubility: Soluble at 20 °C.

Partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

SADT: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No information available

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: Under fire conditions

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity: Not available

Irritation/Corrosion: Not available.

Sensitization: May cause sensitization of susceptible persons.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Oral - May cause damage to kidneys through prolonged or repeated exposure

Aspiration hazard: Not available.

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects:

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: May cause sensitization of susceptible persons.

Ingestion: May cause damage to kidneys with repeated exposure.

Symptoms related to the physical, chemical, and toxicological characteristics:

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects: Also chronic effects from short and long term exposure.

Short term exposure: Not available.

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure: Not available.

Potential immediate effects: Not available.

Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons.

Repeated ingestion may cause damage to kidneys.

Potential chronic health effects: Not available.

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

No substances known to be hazardous to the environment.

13. DISPOSAL CONSIDERATIONS:

FOR LAB RESEARCH USE ONLY NOT FOR USE IN HUMANS OR ANIMALS

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.

International regulations:

EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS

Revision number: 0

Revision: 08/26/2025

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

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SAFETYDATASHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Five color TSA Detect Kit for Rabbit/Mouse Primary Antibody

Catalog Number: PK10034

Component Name: Blocking/Dilution Buffer

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

Proteintech Group, Inc

5500 Pearl Street

Suite 400

Rosemont, IL 60018

312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

GHS label elements

Signal Word: None

Hazard pictograms: None

Hazard Statements: None

Precautionary Statements: None

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Chemical Name	Concentration(%, w/w)	CAS.NO.
Tris	N/G	Cas# 77-86-1
BSA	N/G	Cas# 9048-46-8
Gelatin (cold water fish skin)	N/G	Cas# 9000-70-8
Tween-20	N/G	Cas# 9005-64-5

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute, and delayed

Potential acute health effects

Skin contact: None

Over-exposure signs/symptoms

Skin contact: Repeated contact may cause allergic reactions in very susceptible persons. Avoid Repeat exposure

Ingestion: Repeated ingestion may cause damage to kidneys. Avoid Repeat Exposure

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: None

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Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Use a water spray, CO₂, or dry powder.

Unsuitable extinguishing media: No information available

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up:

Small/Large spill: : Absorb spills of reagents and patients samples with absorbent paper, taking care not to spread the material. Clean spill area with water.

7. HANDLING AND STORAGE:

Handle as if capable of transmitting a disease. Use PPE. Avoid contact with skin, eyes, and clothing.

Wear appropriate protective clothing (Section 8).

Keep container tightly closed, and in a cool, well-ventilated area. Store at 2-8°C.

Precautions for safe handling:

Protective measures: Put on appropriate personal protective equipment (see Section 8)

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practices using universal and standard precautions. In accordance with Universal Precautions, gloves, masks, and gowns should be worn if handling the material. Do not pipette by mouth.

Sodium Azide:

ACGIH TLV: Ceiling: 0.29 mg/m³ Ceiling: 0.11 ppm

OSHA PEL: Not applicable

NIOSH REL: Ceiling: 0.3 mg/m³, Ceiling: 0.1 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical state @ 40°C: Colorless Liquid

Color: None

Odor: Not available.

Odor threshold: Not available.

pH: Not available.

Melting point: Not available.

Boiling point: Not available.

Flash point: Not available.

Burning time: Not applicable.

Burning rate: Not applicable

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Relative density: Not available.

Solubility: Not available.

Partition coefficient: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

SADT: Not available.

Viscosity: Not available.

10. STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No information available

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: No information available

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity: Not available

Irritation/Corrosion: Not available.

Sensitization: Not available.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Not available.

Aspiration hazard: Not available..

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Disposal should be made in accordance with existing procedure and protocols currently in place.

FOR LAB RESEARCH USE ONLY NOT FOR USE IN HUMANS OR ANIMALS

Observe all federal, state, and local regulations pertaining to waste disposal..

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

US Federal Regulations This mixture is not listed on the TSCA Inventory. This substance is not SARA listed.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304:

Composition/information on ingredients: No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312: Classification: Not applicable.

Composition/information on ingredients: No products were found.

State regulations:

California Prop65: Not listed

International regulations:

EU REACH: Not listed

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS

Revision number: 0

Revision: 08/26/2025

The above information is believed to be correct but should only be used as a guide for experienced personnel. Proteintech Group Inc. will not be liable for any damage resulting from the handling of or from contact with the above product. This SDS does not purport to be all-inclusive.

For lab use only, not for diagnostic or therapeutic work.

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SAFETYDATASHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Five color TSA Detect Kit for Rabbit/Mouse Primary Antibody

Catalog Number: PK10034

Component Name: DAPI Nuclear Stain

REACH registration number: No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Company/undertaking Identification:

Proteintech Group, Inc

5500 Pearl Street

Suite 400

Rosemont, IL 60018

312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

GHS label elements

Signal Word: None

Hazard pictograms: None

Hazard Statements:

H316 - Causes mild skin irritation

Precautionary Statements:

P332+P313 - IF SKIN irritation occurs: Get medical advice/attention.

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Chemical Name	Concentration(%, w/w)	CAS.NO.
DAPI	<0.01%	Cas# 28718-90-3
Procline-300	0.1%	Cas# 96118-96-6
NaCl	89.99%	Cas# 7647-14-5
KH ₂ PO ₄	1.439%	Cas# 7778-77-0
Na ₂ HPO ₄	7.927%	Cas# 7558-79-4

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may

include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, light headedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES:

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Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available.

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required..

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8). Keep container tightly closed, and in a cool, well-ventilated area. Store at -20°C. Avoid repeated thawing and freezing.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product. Hygiene measures: Handle in accordance with good industrial hygiene and safety practice Recommended personal protection equipment

Eye protection: Laboratory safety goggles. Hands: Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Colorless liquid

Odor: None

Melting point/melting range: Untested

Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested

Decomposition temperature: Untested

Evaporation rate: Untested

Flammability: Untested

Upper explosion limit: Untested

Lower explosion limit: Untested

Vapor pressure: Untested

Relative density: Untested

Specific gravity: Untested

Solubility: Untested

Partition coefficient: Untested

Explosive properties: Untested

10. STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: None reported

Conditions to avoid: No information available

Incompatible materials: No dangerous reaction known

Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity:

NaCl: Oral Rat, LD50, 3,000 mg/kg

Na₂HPO₄: Oral Rat, LD50, > 2,000 mg/kg

Procline-300: Oral Rat, LD50, 862 mg/kg

KH₂PO₄: Oral Rat, LD50, > 2,000 mg/kg

Irritation/Corrosion: Not available.

Sensitization: Not available.

Mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Teratogenicity: Not available.

Specific target organ toxicity (single exposure): Not available.

Specific target organ toxicity (repeated exposure): Oral May cause damage to kidneys through prolonged or repeated exposure.

Aspiration hazard: Not available.

Conclusion / Summary: To the best of our knowledge, the toxicological properties of this substance have not been thoroughly investigated.

Information on the likely routes of exposure:

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects:

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: May cause sensitization of susceptible persons.

Ingestion: No specific data.

Symptoms related to the physical, chemical, and toxicological characteristics:

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: No specific data.

Ingestion: No specific data.

Delayed and immediate effects. Also chronic effects from short and long term exposure.

Short term exposure: Not available.

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure: Not available.

Potential immediate effects: Not available.

Potential delayed effects: Repeated contact may cause allergic reactions in very susceptible persons.

Potential chronic health effects: Not available.

General: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

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Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

Dispose of contents/container in accordance with local, regional, national, and international regulations.

Avoid release to the environment.

Contaminated packaging: The generation of waste should be avoided or minimized whenever possible.

Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

USA GHS

SARA Reporting Requirements: This product is not subject to Section 302, 304, and 313 reporting requirements under the Superfund Amendment and Reauthorization Act.

Labelling according to US Regulations: Caution: Avoid contact and inhalation.

US Regulatory information: SARA LISTED: No. Chemical SARA 302, SARA 304, and SARA 313

SARA Threshold Planning Quantity: N/A

TSCA Inventory Status: N/A

CERCLA Reporting Quantity (RQ): N/A

Other Federal Regulations: N/A

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS

Revision number: 0

Revision: 08/26/2025

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SAFETYDATASHEET (SDS)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Five color TSA Detect Kit for Rabbit/Mouse Primary Antibody

Catalog Number: PK10034

Component Name: Multi-rAb™ Polymer HRP-Goat Anti-Rabbit/Mouse Universal

Recombinant Secondary Antibody (H+L)

Company/undertaking Identification:

Proteintech Group, Inc

5500 Pearl Street

Suite 400

Rosemont, IL 60018

312-455-8498

Emergency telephone number:

312-455-8498, ext 802

2. HAZARDOUS IDENTIFICATION:

GHS label elements

Signal Word: None

Hazard pictograms: None

Hazard Statements: None

Precautionary Statements:

Prevention: Not Applicable

Response: Not Applicable

Storage: Not Applicable

Disposal: Not Applicable

Other hazards: Not Applicable

3. INGREDIENT COMPOSITION/INFORMATION:

Mixture of the substances listed below, and additional trade secret chemicals.

Chemical Name	Concentration(%, w/w)	CAS.NO.
Water	N/G	Cas# 7732-18-5
Antibody	N/G	/
Sodium Chloride	<1%	Cas# 7647-14-5
Tris hydrochloride	<1%	Cas# 1185-53-1
Tween-20	0.1%	Cas# 9005-64-5
Proclin-300	0.1%	Cas# 55965-84-9
Gelatin	0.1%	Cas# 9000-70-8
Bovine Serum Albumin (BSA)	1%	Cas# 9048-46-8

4. FIRST AID MEASURES:

General Advice	Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. Get medical attention if symptoms occur. If symptoms persist, consult a physician.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Ingestion	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects: both acute and delayed Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, light headedness, chest pain, muscle pain, or flushing.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

Advice for emergency responders: For further assistance, contact your local Poison Control Center.

Protection of first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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5. FIRE FIGHTING MEASURES:

Suitable extinguishing media: Water Spray, Carbon Dioxide, Dry Chemical Powder, or appropriate foam.

Unsuitable extinguishing media: No information available.

Special hazards arising from the substance or mixture: Not known. Advice for fire-fighters: Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES:

Wear appropriate personal protective clothing (Section 8). Mop up with an absorbent cloth and arrange removal by a disposal company. Wash site of spillage thoroughly with water and detergent and prevent further leakage or spillage if safe to do so. No special environmental precautions required..

7. HANDLING AND STORAGE:

Use only in area provided with exhaust ventilation. Avoid contact with skin, eyes and clothing. Wear appropriate protective clothing (Section 8). Keep container tightly closed, and in a cool, well-ventilated area. Store at -20°C.

8. EXPOSURE CONTROLS/PPE:

Follow good laboratory practice when handling this product. Hygiene measures: Handle in accordance with good industrial hygiene and safety practice

Recommended personal protection equipment

Eye protection: Laboratory safety goggles.

Hands: Chemical resistant gloves.

Skin: Laboratory protective clothing.

Respiratory: Fume hood or in areas with adequate ventilation.

Control Parameters:

Glycerol:

ACGIH TLV: Not applicable

OSHA PEL: TWA mist, total particulate – 15mg/m³, TWA mist, respirable fraction: 5 mg/m³

NIOSH REL: Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Color less liquid

Odor: None

Melting point/melting range: Untested

Boiling point/boiling range: Untested

Flash point: Untested

Autoignition temperature: Untested

Decomposition temperature: Untested

Evaporation rate: Untested

Flammability: Untested

Upper explosion limit: Untested

Lower explosion limit: Untested

Vapor pressure: Untested

Relative density: Untested

Specific gravity: Untested

Solubility: Untested

Partition coefficient: Untested

Explosive properties: Untested

10. STABILITY AND REACTIVITY:

Reactivity: None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reactions: None reported

Conditions to avoid: No information available

Incompatible materials: No dangerous reaction known

Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION:

Information on toxicology effects:

Acute toxicity:

NaCl: Oral Rat, LD50, 3,000 mg/kg

Tris hydrochloride: Oral Rat, LD50, 5,900 mg/kg

Tween-20: Oral Rat, LD50, 38,900 mg/kg

Proclin-300: Oral Rat, LD50, 862 mg/kg

Gelatin : Oral Rat, LD50, > 5,000 mg/kg

Inhalation: May be irritating to mucous membranes and upper respiratory tract.

Eye contact: May cause irritation

Skin contact: May cause irritation

Ingestion: May be harmful if swallowed

Carcinogenic effects: Not available

Mutagenic effects: Not available

Reproductive toxicity: Not available

STOT – Single exposure: Not available

STOT – Repeated exposure: Not available

Teratogenic effects: Not available

12. ECOLOGICAL INFORMATION:

Data not yet available.

13. DISPOSAL CONSIDERATIONS:

FOR LAB RESEARCH USE ONLY NOT FOR USE IN HUMANS OR ANIMALS

Dispose of waste in accordance with local and national regulations.

14. TRANSPORT INFORMATION:

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION:

Substances of Very High Concern: None.

Restricted substances under EC 1907/2006, Annex XVII: None.

Substances listed under Annex I of Regulation (EC) No 689/2008: None.

Restricted substances under Annex V of Regulation (EC) No 689/2008: None.

Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None.

German Water hazard classes(Wassergefährdungsklassen):Not classified.

Other International Inventories: No information available

16. OTHER INFORMATION:

Reason for revision: Initial release of SDS

Revision number: 0

Revision: 08/26/2025

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