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Antibodies | ELISA kits | Proteins

Human Phospho-TDP43 (Ser409/410) and Total TDP-43 sandwich ELISA kit datasheet

For the semi-quantitative detection of human Phospho-TDP43 (Ser409/410) and Total TDP-43 in cell lysate.

general information

Catalogue Number	KE40002
Product Name	Human Phospho-TDP43 (Ser409/410) and Total TDP-43(Ser15) Sandwich ELISA Kit
Species cross-reactivity	Human Phospho-TDP43 (Ser409/410) and Total TDP-43(Ser15)
Tested applications	Semi-quantification ELISA

database links

Entrez Gene	**23435**(Human)
SwissProt	**Q13148** (Human)

kit components & storage

Microplate - antibody coated 96 - well Microplate (8 well × 12 strips)	1 plate	Store at 2-8°C for six months
Phospho-TDP43 (Ser409/410) Detection antibody (100X) - 120 µL/vial	1 vial	Store at 2-8°C for six months
Total TDP-43(Ser15) Detection antibody (100X) - 120 µL/vial	1 vial	Store at 2-8°C for six months
HRP-conjugated antibody (100X) - 120 µL/vial	1 vial	Store at 2-8°C for six months
Sample Diluent PT 4B1 - 30 mL/bottle	1 bottle	Store at 2-8°C for six months
Detection Diluent - 30 mL/bottle	1 bottle	Store at 2-8°C for six months
Wash Buffer Concentrate (20X) - 30 mL/bottle	1 bottle	Store at 2-8°C for six months
Tetramethylbenzidine Substrate (TMB) - 12 mL/bottle	1 bottle	Store at 2-8°C for six months
Stop Solution - 12 mL/bottle	1 bottle	Store at 2-8°C for six months
Extraction Buffer -30 mL/bottle	1 bottle	Store at 2-8°C for six months
Plate Cover Seals	3 pieces	

NB: Do not use the kit after the expiration date.

Sample Diluent PT **4B1** is for cell Lysate samples.

Detection Diluent is for Detection antibody and HRP-conjugated antibody.

product description

KE40002 is a solid phase sandwich Enzyme Linked-Immuno-Sorbent Assay (Sandwich ELISA). The human Phospho-TDP43 (Ser409/410) and Total TDP-43(Ser15) ELISA kit is to be used to detect and semi-quantify protein levels of endogenous Phospho-TDP43 (Ser409/410) and Total TDP-43(Ser15). The assay recognizes human Phospho-TDP43 (Ser409/410) and Total TDP-43(Ser15). An antibody specific for human TDP-43 has been pre-coated onto the microwells. Cell Lysate sample in samples is captured by the coated antibody after incubation. Following extensive washing, another antibody specific for human Phospho-TDP43 (Ser409/410) or Total TDP-43(Ser15) is added to detect cell Lysate samples. For signal development, horseradish peroxidase (HRP)-conjugated antibody is added, followed by Tetramethyl-benzidine (TMB) reagent. Solution containing sulfuric acid is used to stop color development and the color intensity which is proportional to the quantity of bound protein is measurable at 450 nm with the correction wavelength set at 630 nm.

background

Transactivation response (TAR) DNA-binding protein of 43 kDa (also known as TARDBP or TDP-43) was first isolated as a transcriptional inactivator binding to the TAR DNA element of the HIV-1 virus. Neumann et al. (2006) found that a hyperphosphorylated, ubiquitinated, and cleaved form of TARDBP, known as pathologic TDP-43, is the major component of the tau-negative and ubiquitin-positive inclusions that characterize amyotrophic lateral sclerosis (ALS) and the most common pathological subtype of frontotemporal lobar degeneration (FTLD-U). Various forms of TDP-43 exist, including 18-35 kDa of cleaved C-terminal fragments, 45-50 kDa phospho-protein, 55 kDa glycosylated form, 75 kDa hyperphosphorylated form, and 90-300 kDa cross-linked form.

safety notes

This product is sold for lab research and development use ONLY and not for use in humans or animals.
Avoid any skin and eye contact with Stop Solution and TMB. In case of contact, wash thoroughly with water.

assay procedure summary

Step	Reagent	Volume	Incubation	Wash	Notes
1	Samples	100 µL	**120 min**	4 times	Cover Wells incubate at 37°C
2	Diluent Antibody Solution	100 µL	60 min	4 times	Cover Wells incubate at 37°C
3	Diluent HRP Solution	100 µL	40 min	4 times	Cover Wells incubate at 37°C
4	TMB Substrate	100 µL	15-20 min	Do not wash	Incubate in the dark at 37°C
5	Stop Solution	100 µL	0 min	Do not wash	-
6	Read plate at 450 nm and 630 nm immediately after adding Stop solution. DO NOT exceed 5 minutes.				

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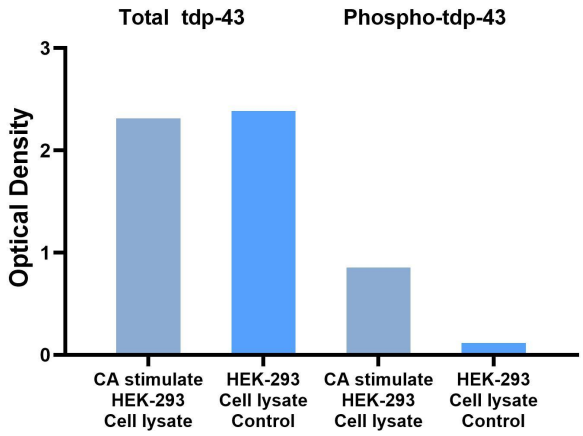
typical data

sample value



HEK-293 cell lysate (60 μg/well): Non-treated HEK-293 and 100 nM Calyculin A treated for 2 h, HEK-293 cells were lysed in 8M urea buffer and diluted in assay buffer.

references

1. Neumann M, et al. (2006) Science. 314(5796):130-3.
2. Foulds PG, et al. (2006) Acta Neuropathol. 118(5):647-58.
3. Guo W, et al. (2011) Nat Struct Mol Biol. 18(7):822-30.
4. Dharmalingam K, et al. (2012) J Ethnopharmacol. 139(2):657-63.

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