For Research Use Only

Four color TSA Detect Kit for Rabbit Primary Antibody

Catalog Number: PK10033

www.ptglab.com

Product Information

TSA (Tyramide Signal Amplification) dyes are fluorescent labelling reagents based on TSA technology. When catalyzed by HRP, TSA dyes form covalent bonds with tyrosine residues on proteins near HRP and accumulate, thereby amplifying the signal. Compared to indirect detection using directly labeled fluorescent primary antibodies or fluorescent secondary antibodies, the TSA system can enhance the signal by several hundred-fold. Furthermore, the covalent bonds formed with the sample are stable and do not easily break, making this technique useful for experiments such as multiplex immunofluorescence and in situ hybridization.
This kit provides enough material to perform 4-color staining of 50 tissue sections or cell slides. It contains three different TSA dyes, nuclear DAPI stain, a Poly-HRP-Goat Anti-Rabbit Secondary antibody, amplification buffer, blocking/dilution buffer, and quenching buffer.

Components

Component	Volume	Concentration
Quenching Buffer	30 mL	RTU
Blocking/Dilution Buffer	100 mL	RTU
Multi-rAb™ Polymer HRP-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L)	15 mL	RTU
CoraLite®Plus 488-Tyramide Reagent	100 uL	50X
CoraLite®Plus 594-Tyramide Reagent	100 uL	50X
CoraLite®Plus 647-Tyramide Reagent	100 uL	50X
Amplification Buffer	30 mL	RTU
DAPI Nuclear Stain	5 mL	RTU

The fluorescence excitation and emission spectra of the provided dyes are as follows, please use an appropriately configured imaging device:

· **CoraLite®Plus 488 -Tyramide Reagent**, maximum excitation wavelength is 493 nm, maximum emission wavelength is 522 nm.

· **CoraLite®Plus 594 -Tyramide Reagent**, maximum excitation wavelength is 588 nm, maximum emission wavelength is 604 nm.

· **CoraLite®Plus 647-Tyramide Reagent**, maximum excitation wavelength is 654 nm, maximum emission wavelength is 674 nm.

· **DAPI Nuclear Stain**, maximum excitation wavelength is 358 nm, maximum emission wavelength is 461 nm.

Package

50 T

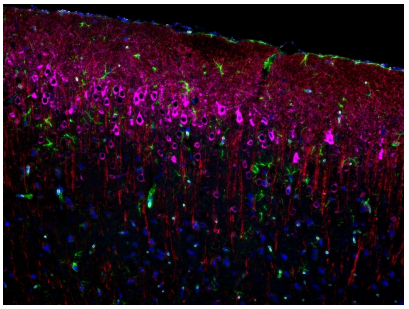
Storage

Store at 2-8°C for up to 12 months.

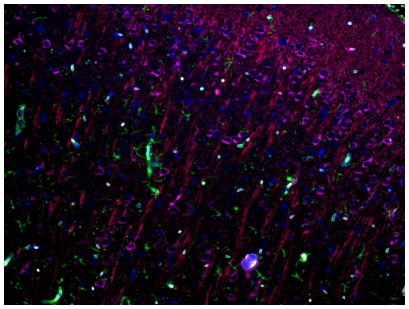
Notes

1. If performing multiplexed staining, it is generally recommended to stain low-abundance targets or weak antibodies first.
2. If performing multiplexed staining, it is recommended to first perform single staining to explore the optimal conditions for different targets before performing multiple rounds of staining to reduce unnecessary waste and facilitate analysis of results.
3. During the operation, when adding liquid to the sample at any step, ensure that there are no bubbles in the liquid, otherwise abnormal staining such as plaques will form. When adding liquid, be careful not to scratch the tissue.
4. Pay attention to the tissue sections or cell samples during the experiment and prevent them from drying out.

Validation Data



IF staining using PK10033 (Four Detect Kit for Rabbit Primary Antibody). FFPE-mouse brain tissue was stained with GFAP recombinant antibody (Cat.NO. 81063-1-RR) at 1:10000 followed by detection with Multi-rAb® Polymer HRP-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L). CoraLite®Plus 488-Tyramide Reagent was used fo... signal development (green). The slide was then conducted HIER in pH 9.0 Tris-EDTA buffer followed by staining with MAP2 Polyclonal antibody (17490-1-AP, 1:10000). CoraLite®Plus 594-Tyramide Reagent was used for signal development (red). Similarly, WFS1 Polyclonal antibody (26995-1-AP, 1:5000) was stained subsequently. CoraLite®Plus 647-Tyramide Reagent was used for signal development (purple). Finally, cell nucleus (blue) were stained with DAPI. The signal from each channel was captured and merged. The secondaries and Tyramide reagents, as well as DAPI are all from the kit.



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