

1X Amplification Diluent

Product description

APExBIO's Tyramine Signal Amplification (TSA) system can be used to detect low-abundance targets in fluorescent immunocytochemistry (ICC), immunohistochemistry (IHC) and in situ hybridisation (ISH) techniques, increasing signal sensitivity by up to 100-fold. The TSA Fluorescence Kit uses horseradish peroxidase (HRP) to directly catalyse covalent deposition of fluorescent groups around the immobilised enzyme. The labelling process is rapid (less than 10 minutes) and the deposited labels can be viewed directly under a standard or confocal microscope. The TSA Fluorescence Kit can also be used in combination with antifluorescence for brightfield microscopy of enzyme concatenates and suitable colour-generating substrates. The use of the TSA reagent significantly increases the signal sensitivity compared to normal experiments, while maintaining a consistent level of specificity and resolution. In addition, TSA reagents can significantly reduce the consumption of primary antibodies or probes.

This product is a ready-to-use reagent for the preparation of tyramide fluorescence working solutions in TSA products (e.g., K1050, etc.).

Components and storage conditions

Components	H1001-30 mL	H1001-60 mL
1X Amplification Diluent	100-300 slides	200-600 slides
Keep 1X Amplification Diluent at 4°C. Shelf life: 12 months upon receipt.		

Experimental manipulation

Configure TSA working solution.

- Calculate the required amount, take 1 X Amplification Diluent and fresh H₂O₂, and configure it into 1 X Amplification Diluent liquid containing 0.3% H₂O₂ and set aside.
- Take the configured TSA storage working solution (such as 1 tube to add 60 µL DMSO, the specific amount can be adjusted appropriately) 1 tube, and add 1 X Amplification Diluent according to the dilution ratio (v/v) of 1:50-1:500 to configure it as a fluorescent working solution containing 0.3% H₂O₂

tyrosamide (for different experimental purposes, the dilution ratio needs to be adjusted to achieve optimal results).

3. Tyrosamide fluorescence solution is subsequently added in an amount of approximately 100-300 μL per slide, followed by incubation at room temperature for 10 minutes (the specific time is subject to the incubation results, adjusted).

Notes

1. This product is a special configuration reagent for TSA working solution, which is configured according to the amount required, and the excess working solution is recommended to be discarded.
2. This product is for scientific use only.

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