

Product Information

Tyramide Amplification Buffer Plus

Catalog Number: 22029-T, 22029

Unit Size: 250 reactions or 1000 reactions*

Kit Contents

Component	22029-T 250 reactions*	22029 1000 reactions*
1X Tyramide Amplification Buffer Plus	99832-25mL	99832-100mL
30% Hydrogen Peroxide	99823-100uL	99823-1mL

*Number of reactions based on 100 uL per sample (enough to cover one well of a 96-well plate or ~1 cm² tissue section). Actual number of tests may vary depending on specimen size.

Storage and Handling

Store at 4°C. Protect from light. Product is stable for at least 6 months from date of receipt when stored as recommended. Warm 1X Tyramide Amplification Buffer to room temperature and mix well by vortexing or shaking to make sure all solids are completely dissolved before each use. The buffer can be warmed in a 37°C water bath for convenience.

Product Description

Tyramide Amplification Buffer Plus is designed for cell and tissue immunostaining with tyramide signal amplification. It provides significantly improved brightness, specificity, and sensitivity compared to our original Ready-to-Use Tyramide Amplification Buffer. Although specifically optimized for our CF® Dye-, Biotin XX-, and DNP-tyramide products, the buffer is also compatible with tyramide probes from other manufacturers.

Visit www.biotium.com to find labeled tyramides, including next-generation CF® Dye Tyramides with a wide selection of colors. We also offer Tyramide Amplification Kits with everything you need to perform tyramide signal amplification, including anti-mouse, anti-rabbit, or streptavidin HRP, and your choice of CF® Dye- or biotin-tyramide.

Staining Protocol

The following protocol is for use with fixed cells in 96-well plates, or ~1 cm² tissue sections. Volumes can be scaled as needed based on sample size.

- Perform fixation, blocking, and antibody labeling using methods recommended for your samples and antibodies. The sample must be labeled with antibody or streptavidin-horseradish peroxidase (HRP) conjugates.
Note: Do not use sodium azide as a preservative in buffers used for staining or washing of HRP conjugates.
- After labeling with antibody-HRP conjugates, wash samples 3 times with an appropriate buffer, incubating 5 minutes at room temperature for each wash. Phosphate buffered saline (PBS) or Tris buffered saline (TBS), with or without 0.1% TWEEN® 20 can be used for washing.
- Prepare working amplification buffer with hydrogen peroxide at a final concentration of 0.0015% by performing a serial dilution of hydrogen peroxide as described below. Prepare 100 uL working amplification buffer for each sample.
 - Add 1 uL of 30% hydrogen peroxide to 200 uL of 1X Tyramide Plus Buffer and mix well to make a 0.15% hydrogen peroxide solution.
 - Add 1 uL of the 0.15% hydrogen peroxide solution to 100 uL of 1X Tyramide Plus Amplification Buffer, for a final concentration of 0.0015% hydrogen peroxide.
- Prepare staining solution by diluting labeled tyramide in the working amplification buffer prepared in step 3. Make 100 uL of staining solution for each sample. The staining solution can be stored at room temperature, protected from light, for up to 24 hours.
Note: The final concentration of tyramide may vary depending on the dye and the application. For CF® Dye-, Biotin XX-, and DNP-tyramide, we recommend a final concentration of 2 uM. However, a titration from 0.5 uM to 10 uM may be necessary to optimize staining.
- Apply 100 uL of staining solution to each sample. Incubate at room temperature, protected from light, for 10 minutes.
- Wash samples 3 times with wash buffer (see Step 2), incubating 5 minutes at room temperature for each wash.
- The samples are now ready for fluorescence imaging. We recommend to cover the well or mount the coverslip with antifade medium such as our EverBrite™ Mounting Medium (see Related Products).

Related Products

Catalog number	Product
20401	HRP Goat Anti-Mouse IgG (H+L), Highly Cross-Adsorbed
20403	HRP Goat Anti-Rabbit IgG (H+L), Highly Cross-Adsorbed
20406	HRP Goat Anti-Rat IgG (H+L), Highly Cross-Adsorbed
20474	HRP Goat Anti-Chicken IgY (H+L), Highly Cross-Adsorbed
20475	HRP Goat Anti-Llama IgG (H+L), Highly Cross-Adsorbed
22011	Fish Gelatin Powder
22014	BSA, IgG- and Protease-free, 30% Solution
22002	TWEEN® 20
23001	EverBrite™ Mounting Medium
23002	EverBrite™ Mounting Medium with DAPI
23003	EverBrite™ Hardset Mounting Medium
23004	EverBrite™ Hardset Mounting Medium with DAPI
23008	Drop-n-Stain EverBrite™ Mounting Medium
23009	Drop-n-Stain EverBrite™ Mounting Medium with DAPI
23005	CoverGrip™ Coverslip Sealant
23007	TrueBlack® Lipofuscin Autofluorescence Quencher
90082	DMSO, Anhydrous
22020	10X Phosphate-Buffered Saline (PBS)
22023	Paraformaldehyde, 4% in PBS, Ready-to-Use Fixative

Please visit our website at www.biotium.com to see our full selection of CF® Dye Tyramides and other tyramides, CF® Dye streptavidin and anti-biotin conjugates, and additional reagents, fluorescent probes, and kits for cell biology research.

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