

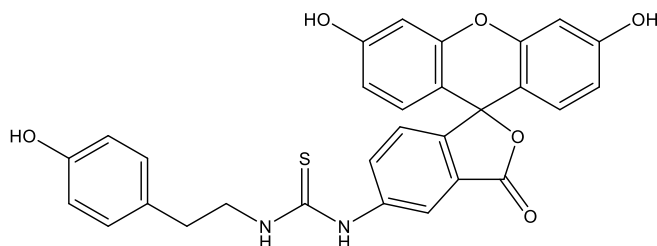
Catalog # 10-5110

FITC-tyramide

1-(3',6'-dihydroxy-3-oxo-3H-spiro[isobenzofuran-1,9'-xanthen]-5-yl)-3-(4-hydroxyphenethyl)thiourea

Fluorescein-tyramide

Lot # S105217



Reagent for use in catalyzed reporter deposition (CARD) signal amplification¹ protocols in a variety of immunoassays in which horseradish peroxidase catalyzes local deposition of FITC tyramide. Typically used in multiplex immunohistochemistry (IHC)², even allowing antibodies of the same species to be used³. Also useful in fluorescent *in situ* hybridization (FISH)⁴, including plant chromosomes, which are notorious for their repetitive regions⁵. Can also be used in more unique ways, to detect dimerization⁶, or reactive oxygen species⁷.

- 1) Bobrow *et al.* (1989), *Catalyzed reporter deposition, a novel method of signal amplification*. Application to immunoassays *J. Immunol. Methods*, **125** 279
- 2) Zhang *et al.* (2017), *Fully automated 5-plex fluorescent immunohistochemistry with tyramide signal amplification and same species antibodies*; *Lab. Invest.*, **97** 873
- 3) Toth and Mezey (2007), *Simultaneous Visualization of Multiple Antigens With Tyramide Signal Amplification Using Antibodies From the Same Species*; *J. Histochem. Cytochem.*, **55** 545
- 4) Riou *et al.* (2017), *Specificity Re-evaluation of Oligonucleotide Probes for the Detection of Marine Picoplankton by Tyramide Signal Amplification-Fluorescent In Situ Hybridization*; *Front. Microbiol.*, **8** 854
- 5) Kirov *et al.* (2014), *Anchoring Linkage Groups of the Rosa Genetic Map to Physical Chromosomes With tyramide-FISH and EST-SNP Markers*; *PLoS One.*, **9** e95793
- 6) Xu *et al.* (2019), *DNAzyme Catalyzed Tyramide Depositing Reaction for In Situ Imaging of protein Status on the Cell Surface* *Theranostics*, **9** 1993
- 7) Larios *et al.* (2001), *Oxidative Protein Cross-Linking Reactions Involving L-tyrosine in Transforming Growth factor-beta1-stimulated Fibroblasts*; *J. Biol. Chem.*, **276** 17437

PHYSICAL DATA

Molecular Weight:	526.56
Molecular Formula:	C ₂₉ H ₂₂ N ₂ O ₆ S
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml) or Ethanol (up to 30 mg/ml)
Physical Description:	Orange solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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