

**Catalog # 10-3446**

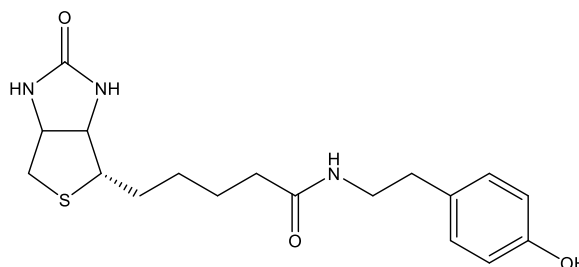
**Biotinyl Tyramide**

CAS# 41994-02-9

(3aS,4S,6aR)-Hexahydro-N-[2-(4-hydroxyphenyl)ethyl]-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanamide

Biotin-phenol

Lot # S104171



Reagent for use in catalyzed reporter deposition (CARD) signal amplification protocols in a variety of immunoassays in which, horseradish peroxidase catalyzed deposition of biotinyl tyramide is detected with labeled streptavidin.<sup>1</sup> Widely used for signal amplification in fluorescent *in situ* hybridization (FISH) protocols.<sup>2</sup> May be used for signal amplification in a sandwich ELISA for quantification of  $\alpha$ -tubulin isoforms.<sup>3</sup> Reagent for “self-biotinylation” of DNA G-quadruplexes.<sup>4</sup> May be used with APEX-mediated biotin labeling to identify protein-protein interactions.<sup>5</sup>

- 1) Bobrow *et al.* (1989), *Catalyzed reporter deposition, a novel method of signal amplification. Application to immunoassays*; J. Immunol. Methods, **125** 279
- 2) Evans *et al.* (2003), *Optimization of biotinyl-tyramide-based in situ hybridization for sensitive background-free applications in formalin-fixed, paraffin-embedded tissue specimens*; BMC. Clin. Pathol., **3** 2
- 3) Draerova *et al.* (2013), *Quantification of  $\alpha$ -tubulin by sandwich ELISA with signal amplification through biotinyl-tyramide or immune-PCR*; J. Immunol. Methods, **395** 63
- 4) Einarson and Sen (2017), *Self-biotinylation of DNA G-quadruplexes via intrinsic peroxidase activity*; Nucleic Acids Res., **45** 9813
- 5) Hwang and Espenshade (2016), *Proximity-dependent biotinlabelling in yeast using the engineered ascorbate peroxidase APEX2*; Biochem. J., **473** 2463

**PHYSICAL DATA**

Molecular Weight:	363.47
Molecular Formula:	C <sub>18</sub> H <sub>25</sub> N <sub>3</sub> O <sub>3</sub> S
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml) or Ethanol (up to 20 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**