

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

Biotinyl Tyramide

Product overview

Name	Biotinyl Tyramide
Cat No	HB18327
Alternative names	Biotin Tyramide, Biotin-Phenol
Applications	IHC
Purity	>98%
Description	Biotin reagent used for signal enhancement in IHC, ISH, and APEX proximity labelling

Biological Data

Biological description	Biotinyl tyramide is widely used as part of the Tyramide signal amplification protocol in immunohistochemistry (IHC), <i>in-situ</i> hybridisation (ISH) and APEX proximity labeling. Target proteins are labelled with a horseradish peroxidase (HRP) labelled antibody and in the presence of H ₂ O ₂ the biotinyl tyramide is covalently attached to tyrosine residues on nearby proteins. This provides localised signal amplification while still maintaining good spatial resolution and the biotin can then be detected with fluorescently labelled streptavidin . Suitable for use with ascorbate peroxidase (APEX) proximity labelling to biotinylate interaction partners of the APEX-tagged protein for downstream proteomic analysis.
-------------------------------	---

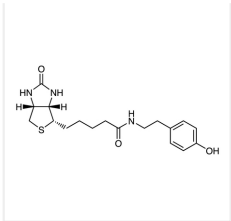
Solubility & Handling

Storage instructions	-20 °C
Solubility overview	Soluble in DMSO (100mM, 36.35mg/ml)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	5-[(3aS,4S,6aR)-2-oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-d]imidazol-4-yl]-N-[2-(4-hydroxyphenyl)ethyl]pentanamide
----------------------	--

Molecular Weight	363.47
Chemical structure	

Chemical name	5-[(3 <i>a</i> S,4 <i>S</i> ,6 <i>a</i> <i>R</i>)-2-oxo-1,3,3 <i>a</i> ,4,6,6 <i>a</i> -hexahydrothieno[3,4- <i>d</i>]imidazol-4-yl]- <i>N</i> -[2-(4-hydroxyphenyl)ethyl]pentanamide
	
Molecular Formula	C ₁₈ H ₂₅ N ₃ O ₃ S
CAS Number	41994-02-9
PubChem identifier	21826423
SMILES	[H][C@]12CS[C@H]1([C@]1(NC(N2)=O)[H])CCCC(NCCC3=CC=C(C=C3)O)=O
Source	Synthetic
InChi	1S/C18H25N3O3S/c22-13-7-5-12(6-8-13)9-10-19-16(23)4-2-1-3-15-17-14(11-25-15)20-18(24)21-17/h5-8,14-15,17,22H,1-4,9-11H2,(H,19,23)(H2,20,21,24)/t14-,15-,17-/m0/s1
InChiKey	VZWXNOBHWODXCW-ZOBUZTSGSA-N
Appearance	White or colorless solid

References

APEX Peroxidase-Catalyzed Proximity Labeling and Multiplexed Quantitative Proteomics.

Kalocsay M (2019) Methods in molecular biology (Clifton, N.J.) 2008

PubMedID [31124087](#)

Tyramide signal amplification for DNA and mRNA in situ hybridization.

Speel EJ et al (2006) Methods in molecular biology (Clifton, N.J.) 326

PubMedID [16780193](#)

Tyramide Signal Amplification Permits Immunohistochemical Analyses of Androgen Receptors in the Rat Prefrontal Cortex.

Low KL et al (2017) The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society 65

PubMedID [28438093](#)