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DATASHEET

Biotinyl Tyramide

Product overview

Name	Biotinyl Tyramide
Cat No	HB18327
Alternative names	Biotin Tyramide
Applications	IHC
Purity	>98%
Description	Biotin reagent used for signal enhancement in IHC and FISH

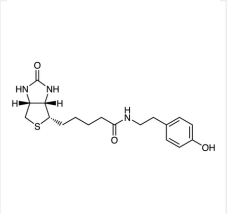
Biological Data

Biological description	Biotinyl tyramide is widely used as part of the Tyramide signal amplification protocol. Target proteins are labelled with a horseradish peroxidase (HRP) labelled antibody and in the presence of H_2O_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.

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-[(3*aS*,4*S*,6*aR*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-d]imidazol-4-yl]-*N*-[2-(4-hydroxyphenyl)ethyl]pentanamide
Molecular Weight	363.47
Chemical structure	
Molecular Formula	$C_{18}H_{25}N_3O_3S$
CAS Number	41994-02-9
PubChem identifier	21826423
SMILES	[H][C@]12CS[C@H]([C@]1(NC(N2)=O)[H])CCCCC(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