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# DATASHEET

**Biotinyl Tyramide** 

#### **Product overview**

Name Biotinvl Tvramide 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), in-situ hybridisation (ISH) and APEX proximity labeling. Target proteins are labelled with a horseradish peroxidase (HRP) labelled antibody and in the presence of H<sub>2</sub>O<sub>2</sub> 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**

Solubility overview Storage instructions Soluble in DMSO (100mM, 36.35mg/ml)

Storage of solutions

Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

**Shipping Conditions** 

**Important** 

Stable for ambient temperature shipping. Follow storage instructions on receipt.

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

363.47

Molecular Weight Chemical structure

 $C_{18}H_{25}N_3O_3S$ 

Molecular Formula **CAS Number PubChem identifier** 

41994-02-9 21826423

**SMILES** [H][C@]12CS[C@H]([C@]1(NC(N2)=O)[H])CCCCC(NCCC3=CC=C(C=C3)O)=OSource Synthetic

InChi 1\$/C18H25N3O3\$/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)21-1 InChiKey Appearance VZWXNOBHWODXCW-ZOBUZTSGSA-N

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