

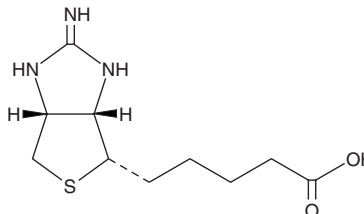
PRODUCT INFORMATION



2-Iminobiotin

Item No. 20812

CAS Registry No.: 13395-35-2
Formal Name: (3aR,6S,6aS)-2-amino-3a,4,6,6a-tetrahydro-1H-thieno[3,4-d]imidazole-6-pentanoic acid
Synonym: Guanidinobiotin
MF: C₁₀H₁₇N₃O₂S
FW: 243.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

2-Iminobiotin is a cyclic guanidino analog of biotin that acts as a reversible inhibitor of inducible nitric oxide synthase (iNOS) and neuronal NOS (nNOS; K_i s = 21.8 and 37.5 μ M for mouse iNOS and rat nNOS, respectively).¹ It also provides sex-specific neuroprotection against hypoxia-ischemia in neonatal rats by an NO-independent mechanism.² 2-Iminobiotin has also been used to capture membrane-bound proteins through biotin-avidin interactions.³

References

1. Sup, S.J., Green, B.G., and Grant, S.K. 2-Iminobiotin is an inhibitor of nitric oxide synthases. *Biochem. Biophys. Res. Commun.* **204**(2), (1994).
2. Nijboer, C.H.A., Groenendaal, F., Kavelaars, A., *et al.* Gender-specific neuroprotection by 2-iminobiotin after hypoxia-ischemia in the neonatal rat via a nitric oxide independent pathway. *J. Cereb. Blood Flow Metab.* **27**(2), 282-292 (2007).
3. Orr, G. A. The use of the 2-iminobiotin-avidin interaction for the selective retrieval of labeled plasma membrane components. *J. Biol. Chem.* **256**(2), 761-766 (1981).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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