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Produktinformation

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- Diagnostik & molekulare Diagnostik
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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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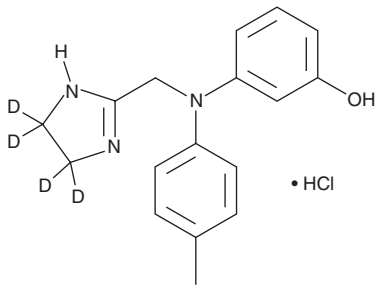
PRODUCT INFORMATION

Phentolamine-d_4 (hydrochloride)

Item No. 29417

CAS Registry No.: 1346599-65-2
Formal Name: 3-[[(4,5-dihydro-1H-imidazol-2-yl-4,4,5,5-d_4)methyl](4-methylphenyl)amino]-phenol, monohydrochloride
MF: $C_{17}H_{15}D_4N_3O \bullet HCl$
FW: 321.8
Chemical Purity: ≥98% (Phentolamine)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Phentolamine-d_4 (hydrochloride) is intended for use as an internal standard for the quantification of phentolamine (Item No. 16135) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Phentolamine-d_4 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the phentolamine-d_4 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Phentolamine-d_4 (hydrochloride) is slightly soluble in methanol and DMSO.

Description

Phentolamine is a reversible antagonist of α-adrenergic receptors, non-specifically binding all α_1- and α_2-adrenoceptors with nanomolar affinities.[1-4] Formulations containing phentolamine have been used in the treatment of hypertensive emergencies, as well as chronic and emergent pain.

References

1. Lomasney, J.W., Cotecchia, S., Lorenz, W., *et al.* Molecular cloning and expression of the cDNA for the α_{1A}-adrenergic receptor. The gene for which is located on human chromosome 5. *J. Biol. Chem.* **266(10),** 6365-6369 (1991).
2. Millan, M.J., Newman-Tancredi, A., Audinot, V., *et al.* Agonist and antagonist actions of yohimbine as compared to fluparoxan at α_2-adrenergic receptors (AR)s, serotonin $(5\text{-HT})_{1A}$, 5-HT_{1B}, 5-HT_{1D} and dopamine D_2 and D_3 receptors. Significance for the modulation of frontocortical monoaminergic transmission and depressive states. *Synapse* **35(2),** 79-95 (2000).
3. O'Rourke, M.F., Iversen, L.J., Lomasney, J.W., *et al.* Species orthologs of the *Alpha*-2A adrenergic receptor: The pharmacological properties of the bovine and rat receptors differ from the human and porcine receptors. *J. Pharmacol. Exp. Ther.* **271(2),** 735-740 (1994).
4. Richelson, E. and Nelson, A. Antagonism by antidepressants of neurotransmitter receptors of normal human brain *in vitro*. *J. Pharmacol. Exp. Ther.* **230(1),** 94-102 (1984).

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