

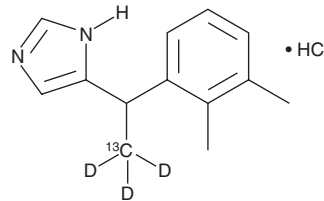
# PRODUCT INFORMATION



## Medetomidine-<sup>13</sup>C-d<sub>3</sub> (hydrochloride)

Item No. 25041

**CAS Registry No.:** 1216630-06-6  
**Formal Name:** 5-(1-(2,3-dimethylphenyl)ethyl-2-<sup>13</sup>C-2,2,2-d<sub>3</sub>)-1H-imidazole, monohydrochloride  
**Synonym:** MVP 785-<sup>13</sup>C-d<sub>3</sub>  
**MF:** C<sub>12</sub>[<sup>13</sup>C]H<sub>13</sub>D<sub>3</sub>N<sub>2</sub> • HCl  
**FW:** 240.8  
**Chemical Purity:** ≥98% (Medetomidine)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Medetomidine-<sup>13</sup>C-d<sub>3</sub> is intended for use as an internal standard for the quantification of medetomidine (Item No. 16454) 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).

Medetomidine-<sup>13</sup>C-d<sub>3</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the medetomidine-<sup>13</sup>C-d<sub>3</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Medetomidine-<sup>13</sup>C-d<sub>3</sub> (hydrochloride) is slightly soluble in methanol.

### Description

Medetomidine is an agonist of α<sub>2</sub>-adrenergic receptors (α<sub>2</sub>-ARs; K<sub>i</sub> = 1.08 nM).<sup>1</sup> It is selective for α<sub>2</sub>-ARs over α<sub>1</sub>-ARs (K<sub>i</sub> = 1,750 nM). Medetomidine induces sedation in dogs.<sup>2</sup> Formulations containing medetomidine have been used as sedatives in veterinary medicine.

### References

1. Virtanen, R., Savola, J.M., Saano, V., *et al.* Characterization of the selectivity, specificity and potency of medetomidine as an α<sub>2</sub>-adrenoceptor agonist. *Eur. J. Pharmacol.* **150(1-2)**, 9-14 (1988).
2. Vainio, O. and Vähä-Vahe, T. Reversal of medetomidine sedation by atipamezole in dogs. *J. Vet. Pharmacol. Ther.* **13(1)**, 15-22 (1990).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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