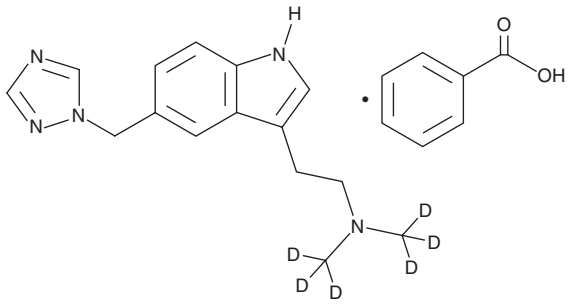
PRODUCT INFORMATION

Rizatriptan-d_6 (benzoate salt)

Item No. 33369

CAS Registry No.:	1216984-85-8
Formal Name:	2-(5-((1H-1,2,4-triazol-1-yl)methyl)-1H-indol-3-yl)-N,N-*bis*(methyl-d_3)ethan-1-amine, monobenzoate
MF:	$C_{15}H_{13}D_6N_5 \bullet C_7H_6O_2$
FW:	397.5
Chemical Purity:	≥98% (Rizatriptan)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_6); ≤1% d_0
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

Rizatriptan-d_6 (benzoate salt) is intended for use as an internal standard for the quantification of rizatriptan (Item No. 16475) 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).

Rizatriptan-d_6 (benzoate salt) is supplied as a solid. A stock solution may be made by dissolving the rizatriptan-d_6 (benzoate salt) in the solvent of choice, which should be purged with an inert gas. Rizatriptan-d_6 (benzoate salt) is soluble in DMSO.

Description

Rizatriptan is an agonist of the serotonin (5-HT) receptor subtypes 5-HT_{1B} and 5-HT_{1D} (K_is = 4.3 and 10.1 nM, respectively).[1] It is selective for 5-HT_{1B} and 5-HT_{1D} receptors over 5-HT_{1A} receptors (K_i = 140 nM). Rizatriptan induces vasoconstriction in isolated human middle meningeal arteries (EC_{50} = 90 nM).[2] *In vivo*, rizatriptan (50 and 75 mg/kg) reduces head grooming, the number of oculotemporal strokes, eye blinking, and one-eye closures in a *Cacna1a* mutant transgenic mouse model of migraine.[3] Formulations containing rizatriptan have been used in the treatment of migraine.

References

1. Xu, Y.-C., Schaus, J.M., Walker, C., *et al.* *N*-Methyl-5-*tert*-butyltryptamine: A novel, highly potent 5-HT_{1D} receptor agonist. *J. Med. Chem.* **42(3)**, 526-531 (1999).
2. Longmore, J., Razzaque, Z., Shaw, D., *et al.* Comparison of the vasoconstrictor effects of rizatriptan and sumatriptan in human isolated cranial arteries: Immunohistological demonstration of the involvement of 5-HT_{1B}-receptors. *Br. J. Clin. Pharmacol.* **46(6)**, 577-582 (1998).
3. Chanda, M.L., Tuttle, A.H., Baran, I., *et al.* Behavioral evidence for photophobia and stress-related ipsilateral head pain in transgenic *Cacna1a* mutant mice. *Pain* **154(8)**, 1254-1262 (2013).

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