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- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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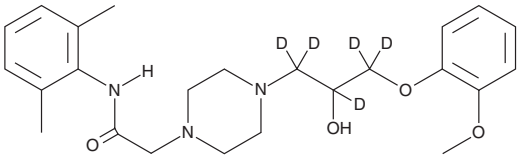
PRODUCT INFORMATION

Ranolazine-d_5

Item No. 25424

CAS Registry No.: 1092804-87-9
Formal Name: N-(2,6-dimethylphenyl)-4-[2-hydroxy-3-(2-methoxyphenoxy)propyl-1,1,2,3,3-d_5]-1-piperazineacetamide
MF: $C_{24}H_{28}D_5N_3O_4$
FW: 432.6
Chemical Purity: ≥98% (Ranolazine)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤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

Ranolazine-d_5 is intended for use as an internal standard for the quantification of ranolazine (Item No. 15604) 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).

Ranolazine-d_5 is supplied as a solid. A stock solution may be made by dissolving the ranolazine-d_5 in the solvent of choice. Ranolazine-d_5 is soluble in organic solvents such as methanol and dichloromethane, which should be purged with an inert gas.

Description

Ranolazine is a piperazine derivative with cardioprotective activity.[1-4] It reduces the late sodium current (I_{Na}) in mouse myocytes expressing the long QT syndrome 3 mutant sodium channel DKPQ, ventricular myocytes isolated from a canine model of heart failure, guinea pig ventricular myocytes exposed to hydrogen peroxide or anemone toxin-II, and HEK293 cells expressing human $Na_v1.5$ channels (IC_{50}s = 5.9-15 µM) as well as the late potassium current (I_{Kr}) in canine ventricular myocytes and HEK293 cells (IC_{50}s = 11.5 and 14.4 µM, respectively).[1,2] Ranolazine also inhibits radioligand binding to α_1-, β_1-, and β_2-adrenergic receptors (K_is = 8.2-19.5, 1.4-8.6, and 0.5-14.8 µM, respectively).[2] *In vivo*, ranolazine (480 µg/kg per min) reduces clofilium-induced prolongation of the QTc interval and Torsade de Pointes (TdP) in rabbits.[3] Ranolazine also reduces interstitial collagen deposition as well as atrial natriuretic peptide (ANP; Item Nos. 24539 | 24276), connective tissue growth factor (CTGF), brain natriuretic peptide (BNP; Item No. 24541), and matrix metalloproteinase-2 (MMP-2) mRNA levels, and prevents left ventricular dilation in a mouse model of cardiotoxicity induced by doxorubicin (Item No. 15007).[4]

References

1. Shryock, J.C. and Belardinelli, L. *Br. J. Pharmacol.* **153(6)**, 1128-1132 (2008).
2. Verrier, R.L., Kumar, K., Nieminen, T., *et al. Europace* **15(3)**, 317-324 (2013).
3. Wang, W.Q., Robertson, C., Dhalla, A.K., *et al. J. Pharmacol. Exp. Ther.* **325(3)**, 875-881 (2008).
4. Tocchetti, C.G., Carpi, A., Coppola, C., *et al. Eur. J. Heart Fail.* **16(4)**, 358-366 (2014).

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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