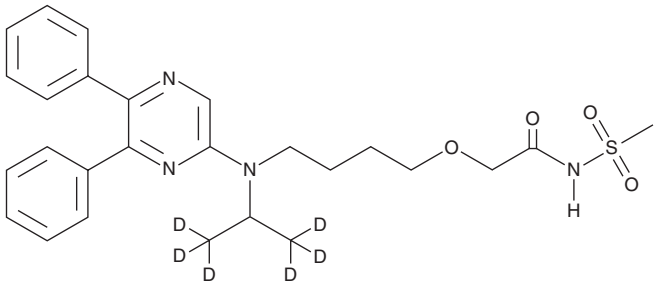
PRODUCT INFORMATION

NS 304-d_6

Item No. 43918

CAS Registry No.: 1265295-92-8
Formal Name: 2-[4-[(5,6-diphenyl-2-pyrazinyl)[1-(methyl-d_3)ethyl-2,2,2-d_3]amino]butoxy]-N-(methylsulfonyl)-acetamide
Synonym: Selexipag-d_6
MF: $C_{26}H_{26}D_6N_4O_4S$
FW: 502.7
Chemical Purity: ≥95% (NS 304)
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

NS 304-d_6 is intended for use as an internal standard for the quantification of NS 304 (Item No. 10010411) 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).

NS 304-d_6 is supplied as a solid. A stock solution may be made by dissolving the NS 304-d_6 in the solvent of choice, which should be purged with an inert gas. NS 304-d_6 is soluble in acetonitrile, methanol, and DMSO.

Description

NS 304 is an IP receptor agonist and a prodrug form of MRE-269 (Item No. 10010412).[1] It binds to the IP receptor (K_i = 260 nM for the human receptor) and induces cAMP accumulation in CHO cells expressing the human IP receptor (EC_{50} = 177 nM). NS 304 is selective for the IP receptor over DP, EP_{1-4}, FP, and TP receptors (K_is = >10 µM for all). NS 304 inhibits the aggregation of isolated human and monkey but not dog platelet-rich plasma (IC_{50}s = 5.5, 3.4, and >100 µM, respectively). It increases femoral skin blood flow in rats when administered at 1 or 3 mg/kg intraduodenally. NS 304 (1 mg/kg) increases survival and decreases right ventricular systolic pressure and hypertrophy in a rat model of pulmonary arterial hypertension induced by monocrotaline (Item No. 16666).[2] Formulations containing NS 304 have been used in the treatment of pulmonary arterial hypertension.

References

1. Kuwano, K., Hashino, A., Asaki, T., *et al.* 2-{4-[(5,6-diphenylpyrazin-2-yl)(isopropyl)amino]butoxy}-N-(methylsulfonyl)acetamide (NS-304), an orally available and long-acting prostacyclin receptor agonist prodrug. *J. Pharmacol. Exp. Ther.* **322(3),** 1181-1188 (2007).
2. Kuwano, K., Hashino, A., Noda, K., *et al.* A long-acting and highly selective prostacyclin receptor agonist prodrug, 2-{4-[5,6-diphenylpyrazin-2-yl)(isopropyl)amino]butoxy}-N-(methylsulfonyl)acetamide (NS-304), ameliorates rat pulmonary hypertension with unique relaxant responses of its active form, {4-[5,6-diphenylpyrazin-2-yl)(isopropyl)amino]butoxy}acetic acid (MRE-269), on rat pulmonary artery. *J. Pharmacol. Exp. Ther.* **326(3),** 691-699 (2008).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM