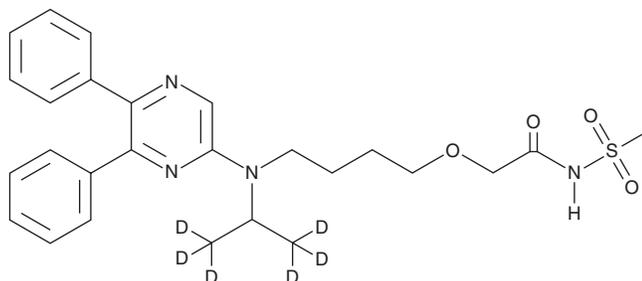


# PRODUCT INFORMATION



**NS 304-d<sub>6</sub>**  
Item No. 43918

**CAS Registry No.:** 1265295-92-8  
**Formal Name:** 2-[4-[(5,6-diphenyl-2-pyrazinyl)  
[1-(methyl-d<sub>3</sub>)ethyl-2,2,2-d<sub>3</sub>]amino]  
butoxy]-N-(methylsulfonyl)-acetamide  
**Synonym:** Selexipag-d<sub>6</sub>  
**MF:** C<sub>26</sub>H<sub>26</sub>D<sub>6</sub>N<sub>4</sub>O<sub>4</sub>S  
**FW:** 502.7  
**Chemical Purity:** ≥95% (NS 304)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>6</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

NS 304-d<sub>6</sub> 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<sub>6</sub> is supplied as a solid. A stock solution may be made by dissolving the NS 304-d<sub>6</sub> in the solvent of choice, which should be purged with an inert gas. NS 304-d<sub>6</sub> 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).<sup>1</sup> It binds to the IP receptor (K<sub>i</sub> = 260 nM for the human receptor) and induces cAMP accumulation in CHO cells expressing the human IP receptor (EC<sub>50</sub> = 177 nM). NS 304 is selective for the IP receptor over DP, EP<sub>1-4</sub>, FP, and TP receptors (K<sub>i</sub>s = >10 μM for all). NS 304 inhibits the aggregation of isolated human and monkey but not dog platelet-rich plasma (IC<sub>50</sub>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).<sup>2</sup> 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).

### 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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