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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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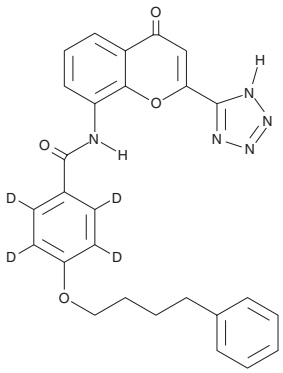
PRODUCT INFORMATION

Pranlukast-d_4

Item No. 28709



Formal Name:	N-[4-oxo-2-(1H-tetrazol-5-yl)-4H-1-benzopyran-8-yl]-4-(4-phenylbutoxy)-benzamide-d_4
MF:	$C_{27}H_{19}D_4N_5O_4$
FW:	485.5
Chemical Purity:	≥98% (Pranlukast)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_4); ≤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

Pranlukast-d_4 is intended for use as an internal standard for the quantification of pranlukast (Item No. 10008319) 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).

Pranlukast-d_4 is supplied as a solid. A stock solution may be made by dissolving the pranlukast-d_4 in the solvent of choice, which should be purged with an inert gas. Pranlukast-d_4 is soluble in DMSO.

Description

Pranlukast is an orally bioavailable cysteinyl leukotriene 1 ($CysLT_1$) receptor antagonist (IC_{50}s = 4.3-7.2 nM in radioligand binding assays).[1] It is selective for the $CysLT_1$ receptor over the $CysLT_2$ receptor (IC_{50} = 3,620 nM for the human receptor).[2] Pranlukast inhibits mucus secretion induced by leukotriene D_4 (LTD_4; Item No. 20310) in isolated guinea pig trachea with an IC_{50} value of 0.3 µM.[3] It inhibits TNF-α-induced NF-κB p65 nuclear localization in U937 and Jurkat cells when used at concentrations of 10 and 100 µM.[4] Pranlukast inhibits bronchoconstriction induced by LTC_4 (Item No. 20210), LTD_4, and LTE_4 (Item No. 20410), but not LTB_4 (Item No. 20110), in guinea pigs (ID_{50}s = 0.8, 1, 0.7, and >500 µg/kg, respectively).[5] It reduces cortical infarct volume by 81.6% and decreases neuronal death in the cortex, hippocampus, and striatum in a rat model of ischemia induced by middle cerebral artery occlusion (MCAO) when administered at a dose of 0.03 mg/kg.[6]

References

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3. Liu, Y.-C., Khawaja, A.M., and Rogers, D.F. *Br. J. Pharmacol.* **124(3)**, 563-571 (1998).
4. Ichiyama, T., Hasegawa, S., Umeda, M., *et al. Clin. Exp. Allergy* **33(6)**, 802-807 (2003).
5. Nakai, H., Konno, M., Kosuge, S., *et al. J. Med. Chem.* **31(1)**, 84-91 (1988).
6. Zhang, W.-P., Wei, E.-Q., Mei, R.-H., *et al. Acta Pharmacol. Sin.* **23(10)**, 871-877 (2002).

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