SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

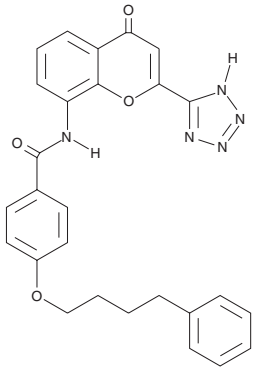
www.szabo-scandic.com

linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Pranlukast

Item No. 10008319



CAS Registry No.:	103177-37-3
Formal Name:	N-[4-oxo-2-(1H-tetrazol-5-yl)-4H-1-benzopyran-8-yl]-4-(4-phenylbutoxy)-benzamide
Synonyms:	ONO-RS-411, ONO-1078
MF:	$C_{27}H_{23}N_5O_4$
FW:	481.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 255, 315 nm
Supplied as:	A crystalline 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the pranlukast in an organic solvent purged with an inert gas. Pranlukast is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of pranlukast in these solvents is approximately 10 and 20 mg/ml, respectively.

Pranlukast is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pranlukast should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Pranlukast has a solubility of approximately 5 mg/ml in a 1:8 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

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

1. Lynch, K.R., O'Neill, G.P., Liu, Q., *et al. Nature* **399(6738)**, 789-793 (1999).
2. Heise, C.E., O'Dowd, B.F., Figueroa, D.J., *et al. J. Biol. Chem.* **275(39)**, 30531-30536 (2000).
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).

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