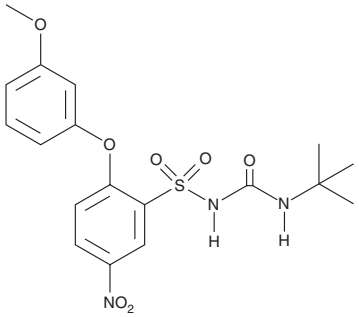
PRODUCT INFORMATION

CAY10535

Item No. 10010396

CAS Registry No.:	945716-28-9
Formal Name:	N-[[(1,1-dimethylethyl)amino] carbonyl]-2-(3-methoxyphenoxy)-5-nitro-benzenesulfonamide
MF:	$C_{18}H_{21}N_3O_7S$
FW:	423.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 294 nm
Supplied as:	A crystalline 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

CAY10535 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10535 in the solvent of choice, which should be purged with an inert gas. CAY10535 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10535 in ethanol is approximately 10 mg/ml and approximately 20 mg/ml in DMSO and DMF.

CAY10535 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10535 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CAY10535 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TPα and TPβ are two isoforms of the human TP receptor, the G protein-coupled receptor (GPCR) that mediates the actions of thromboxane A_2 (TXA_2). Although their distinct physiological functions have not been fully elucidated, TPβ is believed to be responsible for vascular endothelial growth factor-induced endothelial cell differentiation and migration whereas TPα appears to be the predominant isoform expressed in platelets. CAY10535 is a TP receptor antagonist that shows ~20-fold selectivity for TPβ (IC_{50} = 99 nM) relative to TPα (IC_{50} = 1,970 nM) in the inhibition of U46619-mediated Ca^{2+} mobilization. This compound exhibits relatively poor activity on platelets (IC_{50} = 985 nM) when inhibiting U-46619-induced platelet aggregation.[1]

Reference

1. Hanson, J., Dogné, J.M., Ghiotto, J., *et al.* Design, synthesis, and SAR study of a series of *N*-alkyl-*N'*-[2-(aryloxy)-5-nitrobenzenesulfonyl]ureas and -cyanoguanidine as selective antagonists of the TPα and TP*β* isoforms of the human thromboxane A_2 receptor. *J. Med. Chem.* **50(16)**, 3928-3936 (2007).

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