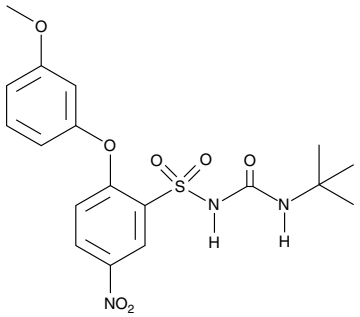
Product Information

CAY10535

Item No. 10010396

CAS Registry No.: 945716-28-9
Formal Name: N-(*tert*-butylcarbamoyl)-2-(3-methoxyphenoxy)-5-nitrobenzenesulfonamide
MF: $C_{18}H_{21}N_3O_7S$
FW: 423.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 294 nm



Laboratory Procedures

For long term storage, we suggest that CAY10535 be stored as supplied at -20°C. It should be stable for at least two years.

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

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.

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 U-46619-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 TPβ isoforms of the human thromboxane A_2 receptor. *J. Med. Chem.* **50(16)**, 3928-3936 (2007).

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