

PRODUCT INFORMATION

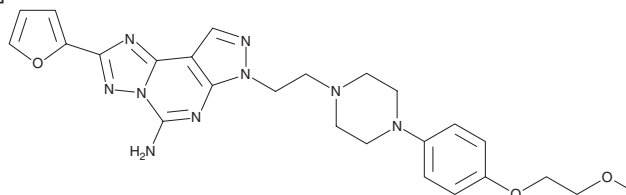


Preladenant

Item No. 22210

CAS Registry No.: 377727-87-2
Formal Name: 2-(2-furanyl)-7-[2-[4-[4-(2-methoxyethoxy)phenyl]-1-piperazinyl]ethyl]-7H-pyrazolo[4,3-e][1,2,4]triazolo[1,5-c]pyrimidin-5-amine

Synonym: SCH 420814
MF: C₂₅H₂₉N₉O₃
FW: 503.6
Purity: ≥98%
UV/Vis.: λ_{max}: 259 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

Preladenant is supplied as a crystalline solid. A stock solution may be made by dissolving the preladenant in the solvent of choice, which should be purged with an inert gas. Preladenant is slightly soluble in ethanol and DMSO.

Description

Preladenant is an orally bioavailable antagonist of the adenosine A_{2A} receptor (K_is = 1.1 and 2.5 nM for human and rat receptors, respectively).¹ It is selective for A_{2A} receptors over A₁, A_{2B}, and A₃ receptors (K_is = >1,000, >1,700, and >1,000 nM, respectively) as well as a panel of 59 receptors, enzymes, and ion channels. Preladenant inhibits adenylate cyclase activity (K_is = 1.3 and 0.7 nM for human and rat receptors, respectively) induced by the A_{2A} receptor agonist CGS 21680 (Item No. 17126). It inhibits catalepsy induced by haloperidol (Item No. 12014) in rats by 77 and 70% after 1 and 4 hours, respectively, when administered at a dose of 1 mg/kg. Preladenant also increases the efficacy of L-DOPA (Item No. 13248) when used in combination with eltopazine (Item No. 18428) in a 6-OHDA rat lesion model of Parkinson's disease dyskinesia.²

References

1. Neustadt, B.R., Hao, J., Lindo, N., *et al.* Potent, selective, and orally active adenosine A_{2A} receptor antagonists: Arylpiperazine derivatives of pyrazolo[4,3-e]-1,2,4-triazolo[1,5-c]pyrimidines. *Bioorg. Med. Chem. Lett.* **17**(5), 1376-1380 (2007).
2. Pinna, A., Kin, W., Costa, G., *et al.* Antidyskinetic effect of A_{2A} and 5HT_{1A/1B} receptor ligands in two animal models of Parkinson's disease. *Mov. Disord.* **31**(4), 501-511 (2016).

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.

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