

Product Datasheet

Riociguat (orb1221944)

Catalog Number	orb1221944
Category	Small Molecules
Description	<p>Riociguat, also known as BAY 63-2521, is a novel drug that is currently in clinical development by Bayer. It is a stimulator of soluble guanylate cyclase (sGC). At the moment Phase III clinical trials investigate the use of riociguat as a new approach to treat two forms of pulmonary hypertension (PH): chronic thromboembolic pulmonary hypertension (CTEPH) and pulmonary arterial hypertension (PAH). Riociguat constitutes the first drug of a novel class of sGC stimulators. (In Vitro): [3H]Rauwolscine binding to $\alpha 2$ adrenergic receptor is reversible, stereospecific, and saturable. [3H]Rauwolscine specifically labels both the high and low affinity states of the $\alpha 2$ adrenergic receptor in brain membranes. [3H]Rauwolscine also behaves as a 5-HT_{1A} receptor agonist and this conclusion is compatible with earlier functional studies, indicating that rauwolscine (as well as yohimbine) has agonistic properties at the level of 5-HT autoreceptors. When using [3H]5-HT as a radioligand, rauwolscine is determined to have relatively high affinity for the human receptor (K_i human=14.3 nM, K_i rat=35.8 nM). Saturation studies shows that the affinity of [3H]Rauwolscine is similar in mouse, rat, rabbit, dog (2.33-3.03 nM) except man where it is significantly higher (0.98 nM) .</p>
Target	Guanylate cyclase
Purity	>98% (HPLC)
MW	422.42
Target Areas	Guanylate cyclase
Solubility (25°C)	DMSO : \geq 50 mg/mL; 118.37 mM
CAS Number	625115-55-1
Formula	$C_{20}H_{19}FN_8O_2$

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SMILES	<chem>C(=O)(N(C)c1c(nc(nc1N)c1c2c(nccc2)n(n1)Cc1c(cccc1)F)N)OC</chem>
Chemical Name	methyl (4,6-diamino-2-(1-(2-fluorobenzyl)-1H-pyrazolo[3,4-b]pyridin-3-yl)pyrimidin-5-yl)(methyl)carbamate
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

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