Product Data Sheet

Product Name: BM 567
Cat. No.: GC14758

Chemical Properties

Cas. No.	284464-77-3		
Chemical Name	2-(cyclohexylamino)-5-nitro-N-[(pentylamino)carbonyl]-benzenesulfonamide		
SMILES	CCCCCNC(=O)NS(=O)(=O)c1cc(ccc1NC1CCCCC1)[N](=O)O		
Formula	$C_{18}H_{28}N_4O_5S$	M.Wt	412.5
Solubility	≤10mg/ml in ethanol;20mg/ml in DMSO;20mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	BM 567		

Background

IC50: 1.1 nM for TXA2 receptor antagonism

BM 567 is acting as an inhibitor of thromboxane A2 (TXA2) synthase and an antagonist of the TP receptor.

Thromboxane A2 (TXA2), a potent thrombogenic and vasoconstrictor eicosanoid, is produced in large quantities by activated platelets. TXA2 has been reported as a causal factor in the onset of stroke and myocardial infarction.

In vitro: BM 567 was identified as a dual acting antithrombogenic agent, acting as an inhibitor of thromboxane A2 (TXA2) synthase and an antagonist of the TP receptor, the G protein-coupled receptor mediating TXA2 activity in platelets and vascular smooth muscle. BM 567 antagonized the vascular smooth muscle TP receptor with an IC50 value of 1.1 nM. BM 567 was also able to inhibit platelet TX synthase with an IC50 value of 12

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nM. In addition, by comparing crystallographic and electronic properties of BM567 and terbogrel, two compounds with dual action (TXRA and TXSI), two essential anchoring identified: sulfonyl and nitro group for BM567 and carboxylate and pyridine nitrogen for terbogrel [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:
[1] Michaux, C. ,Rolin, S.,Dogné, J.M., et al. Structure determination and comparison of BM567, a sulfonylurea, with Terbogrel, two compounds with dual action, thromboxane receptor antagonism, and thromboxane synthase inhibition. Bioorganic & Medicinal Chemistry Letters 11, 1019-1022 (2001).

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