# Product Data Sheet

Product Name: BIM 23042
Cat. No.: GC17080

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 111857-96-6 | | |
| SMILES | CC([C@@](/N=C(O)/[C@](/N=C(O)/[C@@](/N=C(O)/[C@](/N=C(O)/[C@](/N=C(O)/[C@@](N)([H])C1=CC2=CC=CC=C2C=C1)([H])CS)([H])CC3=CC=C(O)C=C3)([H])CC4=CNC5=CC=CC=C45)([H])CCCCN)([H])/C(O)=N/[C@@](/C(O)=N/[C@@](C(O)=N)([H])CC6=CC7=CC=CC=C7C=C6)([H])CS)C | | |
| Formula | $C_{62}H_{73}N_{11}O_9S_2$ | M.Wt | 1180.44 |
| Solubility | Soluble to 1 mg/ml in 0.1% acetic acid | Storage | Desiccate 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 | BIM 23042 | | |

## Background

Ki: 49 ±14 nM for neuromedin B-induced endpoint in huNMBR cells

Neuromedin B, a mammalian peptide of the bombesinlike peptide family sharing amino acid homology with its amphibian counterpart ranatensin, elicits a diverse array of biological responses in central and peripheral tissues. BIM 23042 [D-Nal-Cys-Tyr- D-Trp-Lys-Val-Cys-Nal-NH2] is a selective neuromedin B antagonist.

In vitro: BIM 23042 has a l00-fold greater affinity for BB1 receptors than BB2 receptors. The submaximal mobilisation observed with neuromedin B (1 nM) was abolished by BIM 23042 but restored with a subsequently higher concentration of neuromedin B (1 µM). BIM 23042 competitively inhibited neuromedin B-induced endpoint in huNMBR cells with a Ki of 49 ±14 nM [1].


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In vivo: In cat upper GI tract, SSocta, at concentrations of 10 mM, did not influence the smooth muscle tone but shifted NMB concentration response to the right yielding (Ki=1.7±0.8 mM). Ssocta inhibited both NMB- and GRP-induced contractions on the esophagus. the NMB-receptor antagonist SSocta had no effect on circular fundic muscle indicating the absence of this receptor subtype on fundus. [2].

Clinical trial: Up to now, BIM 23042 is still in the preclinical development stage.

References:
[1] Ryan RR, Taylor JE, Daniel JL, Cowan A. Pharmacological profiles of two bombesin analogues in cells transfected with human neuromedin B receptors. Eur J Pharmacol. 1996 Jun 13;306(1-3):307-14.
[2] Milusheva EA, Kortezova NI, Mizhorkova ZN, Papasova M, Coy DH, Bálint A, Vizi ES, Varga G. Role of different bombesin receptor subtypes mediating contractile activity in cat upper gastrointestinal tract. Peptides. 1998;19(3):549-56.


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