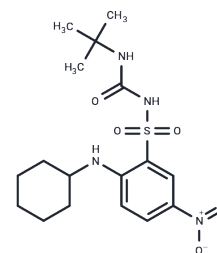


BM-531

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 284464-46-6 |
| Formula: | C ₁₇ H ₂₆ N ₄ O ₅ S |
| Molecular Weight: | 398.48 |
| Storage: | Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small> |



Biological Description

| | |
|---------------|---|
| Description | BM-531 is a thromboxane A ₂ receptor (TXA ₂ R) antagonist (IC ₅₀ = 7.8 nM) and thromboxane synthase inhibitor exhibiting antiplatelet activity. It inhibits arachidonic acid-induced platelet aggregation and suppresses the second wave of ADP-induced aggregation. |
| Targets(IC50) | Platelet aggregation, GPCR, Prostaglandin Receptor |
| In vitro | BM-531 (0.0001-10 μM) exhibits high affinity for the thromboxane A ₂ (TXA ₂) receptor in homo sapiens platelets (IC ₅₀ = 0.0078 μM, determined by competitive displacement of [³ H]SQ-29548) [1]. BM-531 demonstrates anti-aggregatory effects in homo sapiens platelet-rich plasma (PRP), inhibiting arachidonic acid-induced platelet aggregation (ED ₁₀₀ = 0.125 μM) and U-46619-induced platelet aggregation (ED ₅₀ = 0.482 μM) [1]. BM-531 (10 μM) inhibits high K ⁺ -induced contraction in porcine uterine smooth muscle after 1 hour of treatment [2]. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.5095 mL | 12.5477 mL | 25.0954 mL |
| 5 mM | 0.5019 mL | 2.5095 mL | 5.0191 mL |
| 10 mM | 0.251 mL | 1.2548 mL | 2.5095 mL |
| 50 mM | 0.0502 mL | 0.251 mL | 0.5019 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Dogné JM, et al. Effects of a novel non-carboxylic thromboxane A2 receptor antagonist (BM-531) derived from torasemide on platelet function. *Prostaglandins Leukot Essent Fatty Acids*. 2000 May;62(5):311-7.

Cao J, et al. Thromboxane A2 (TP) receptor in the non-pregnant porcine myometrium and its role in regulation of spontaneous contractile activity. *Eur J Pharmacol*. 2004 Feb 6;485(1-3):317-27.

Michaux C, et al. N-tert-butyl-N'-(2-cyclohexylamino-5-nitrobenzenesulfonyl)urea, BM531, a dual-acting agent for thromboxane receptor antagonism and thromboxane synthase inhibition. *Acta Crystallogr C*. 2002 Oct;58(Pt 10):o621-3.

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