

Product Information

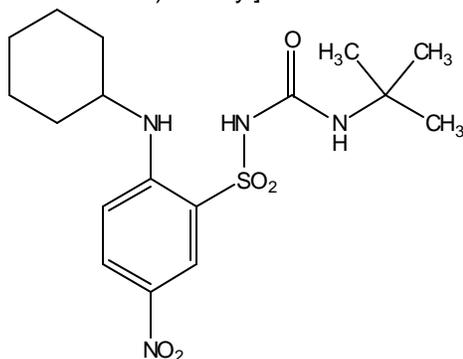
BM-531

Product Number **B 5806**

Storage Temperature: RT

Cas #: 284464-46-6

Synonyms: N-*tert*-butyl-N'-(2-cyclohexylamino-5-nitrobenzene)sulfonyl]urea



Product Description

Molecular Formula: C₁₇H₂₆N₄O₅S

Molecular Weight: 398.48

Supplied as light yellow solid.

Purity: >97% by HPLC.

Melting point: 147-149 °C

BM-531 is a torsemide analog that is a novel non-carboxylic thromboxane A₂ (TXA₂) receptor antagonist and thromboxane synthase inhibitor.^{1,2}

TXA₂ is produced by the action of thromboxane synthase on the endoperoxide prostaglandin H₂ (PGH₂)

in activated platelets and macrophages.³ The affinity of BM-531 for TXA₂ receptors on washed human platelets (IC₅₀ = 7.8 nM) is higher than that of other known inhibitors such as sulotroban (IC₅₀ = 0.93 μM) and SQ-29548 (IC₅₀ = 0.021 μM).

In human citrated platelet-rich plasma BM-531 prevents platelet aggregation induced by arachidonic acid, U-46619 or collagen. In addition, it totally prevents the production of TXB₂. These results suggest that BM-531, which lacks the diuretic property of torsemide, can be regarded as promising inhibitor of platelet aggregation that may prevent the prothrombic action of TXA₂ without the cyclooxygenase-blocking activity of aspirin.

Reagents

Soluble in DMSO at >22 mg/ml. Insoluble in water.

Storage/Stability

Store tightly sealed at room temperature.

References

1. Dogné, J.-M., et al., Cardiovascular Drug Reviews, **19**, 87-96 (2001).
2. Dogné, J.-M., et al., Prostaglandins, Leukotrienes and Essential Fatty Acids, **62**, 311-317 (2000).
3. Needleman, P., et al., Nature, **261**, 558-560 (1976).

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