

DATA SHEET

Product Name: Zileuton

Catalog #: N-3023

Alt: CAS # 111406-87-2; N-(1-Benzo[b]thien-2-ylethyl)-N-hydroxyurea

Molecular Mass: 236.3 C₁₁H₁₂N₂O₂S

Analysis: >98% (TLC); NMR (conforms)

Supplied As: White powder

Resuspension: May be dissolved in DMSO (25 mg/ml)

Storage: Store desiccated as supplied at ambient temperature for up to 2 years.
Store solutions at -20°C for up to 3 months.

Description: Reversible inhibitor of 5-Lipoxygenase (IC₅₀ = 500 nM in RBL-1 cells and 300 nM rat PMNLs)¹. It also inhibited leukotriene B₄ biosynthesis (IC₅₀'s = 400nM rat PMNL, 400nM human PMNL)¹. Zileuton suppressed prostaglandin biosynthesis via interference with arachidonic acid release in macrophages independent of 5-LO inhibition (IC₅₀ = 13 μM PGE₂ inhibition in LPS-stimulated whole blood)². Restores memory impairments and reverses amyloid and tau pathology in an Alzheimer's mouse model³.

References:

1. Waring, P., and Beaver, J., (1996) Gen. Pharmacol., 27: 1311
2. Fitzpatrick, L.M., et al., (2000) Dig. Dis. Sci., 45: 2327
3. Di Meco, A., et al., (2014) Neurobiol. Aging, 35: 2458

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