



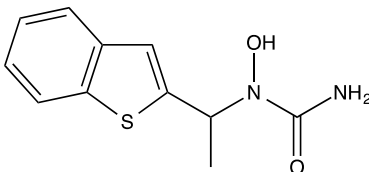
Catalog # 10-1098

Zileuton

CAS# 111406-87-2

N-(1-Benzo[b]thien-2-ylethyl)-N-hydroxyurea

Lot # X101417



Zileuton is a reversible inhibitor (IC_{50} = 500nM RBL-1 cells, 300nM rat PMNL cells) of 5-Lipoxygenase (5-LO).¹ It also inhibited leukotriene B₄ biosynthesis (IC_{50} 's = 400nM rat PMNL, 400nM human PMNL and 900nM human whole blood).¹ Zileuton suppressed prostaglandin biosynthesis *via* interference with arachidonic acid release in macrophages independent of 5-LO inhibition (IC_{50} = 13 μ M PGE₂ inhibition in LPS-stimulated whole blood).² Zileuton was approved by the FDA in 1997 for the treatment of asthma (ZYFLO).

- 1) Carter *et al.* (1991), *5-Lipoxygenase inhibitory activity of zileuton*; J.Pharmacol.Exp.Ther. **256** 929
- 2) Rossi *et al.* (2010), *The 5-lipoxygenase inhibitor, zileuton, suppresses prostaglandin biosynthesis by inhibition of arachidonic acid release in macrophages*; Br.J.Pharmacol. **161** 555

PHYSICAL DATA

Molecular Weight:	236.29
Molecular Formula:	C ₁₁ H ₁₂ N ₂ O ₂ S
Purity:	>98%
	NMR: (Conforms)
Solubility:	Soluble in DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20° for up to 1 year from the date of purchase. Store solutions at -20°C for up to 1 month.

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