
Product Data Sheet

Product Name: SKF 86002 dihydrochloride

Cat. No.: GC17725

Chemical Properties

Cas. No. 116339-68-5

Chemical Name 6-(4-fluorophenyl)-5-(pyridin-4-yl)-2,3-dihydroimidazo[2,1-b]thiazole dihydrochloride

SMILES FC1=CC=C(C(N=C2N3CCS2)=C3C4=CC=NC=C4)C=C1.Cl.ClFormula $C_{16}H_{12}FN_3S \cdot 2HCl$ M.Wt 370.27

Solubility <18.51mg/ml in Water Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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 **Background**

SKF-86002 is a potent inhibitor of p38 MAP kinase with IC_{50} of 0.5-1 μM ; inhibits LPS-induced IL-1 and TNF- α production in human monocytes ($IC_{50} = 1 \mu M$). IC_{50} value: Target: p38 MAPK inhibitor in vitro: SKF-86002 inhibited prostaglandin H2 (PGH2) synthase activity (IC_{50} 120 μM) as well as prostanoid production by rat basophilic leukemia (RBL-1) cells (IC_{50} 70 μM) and its sonicate (IC_{50} 100 μM) and human monocytes (IC_{50} 1 μM). In addition, SK&F 86002 inhibited the generation of dihydroxyeicosatetraenoic acid (diHETE) and 5-hydroxyeicosatetraenoic acid (5-HETE) by a high speed supernatant fraction of RBL-1 cells (IC_{50} 10 μM) [1]. Differentiation of HL-60 cells toward the neutrophil phenotype resulted in a loss in c-Jun NH2-terminal kinase activation with concomitant acquisition of formylmethionylleucylphenylalanine-stimulatable and stress-inducible p38 MAPK activity as well as apoptosis blockade by SKF-86002 [2]. SKF-86002 blocked superoxide anion production in response to FMLP and reduced adhesion and chemotaxis in response to PAF or FMLP [3].

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

- [1]. Griswold DE, et al. SK&F 86002: a structurally novel anti-inflammatory agent that inhibits lipoxygenase- and cyclooxygenase-mediated metabolism of arachidonic acid. *Biochem Pharmacol.* 1987 Oct 15;36(20):3463-70.
- [2]. Frasch SC, et al. p38 mitogen-activated protein kinase-dependent and -independent intracellular signal transduction pathways leading to apoptosis in human neutrophils. *J Biol Chem.* 1998 Apr 3;273(14):8389-97.
- [3]. Nick JA, et al. Common and distinct intracellular signaling pathways in human neutrophils utilized by platelet activating factor and FMLP. *J Clin Invest.* 1997 Mar 1;99(5):975-86.

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