

Product Data Sheet

Product Name: Pranoprofen

Cat. No.: GC11670

Chemical Properties

Cas. No. 52549-17-4

Chemical Name 2-(5H-chromeno[2,3-b]pyridin-7-yl)propanoic acid

SMILES CC(C1=CC2=C(C=C1)OC3=C(C2)C=CC=N3)C(=O)O

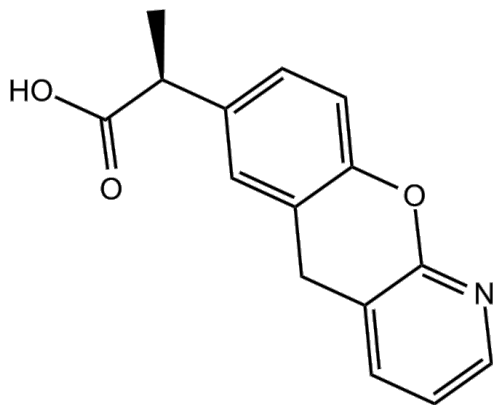
Formula $C_{15}H_{13}NO_3$ M.Wt 255.27

Solubility $\geq 11.5\text{mg/mL}$ in DMSO 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

Pranoprofen is a non-steroidal anti-inflammatory drug used in ophthalmology. Target: PGE2. Pranoprofen 0.1% was found to be as effective as diclofenac sodium 0.1% in reducing inflammation and pain after strabismus surgery. Pranoprofen could be used as a safe and effective anti-inflammatory alternative for the treatment of inflammation following strabismus surgery [1]. pranoprofen has efficacy equivalent to a moderate-potency corticosteroid with a better safety profile. It should be considered for the treatment of chronic conjunctivitis of presumed nonbacterial origin [2].

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

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Pranoprofen inhibited ER stress-induced glucose regulated protein 78 (GRP78) expression, an ER-localized molecular chaperon. Moreover, pranoprofen inhibited ER stress-induced CCAAT/enhancer-binding protein homologous protein (CHOP) expression, an apoptotic transcription factor. the inhibitory effect of pranoprofen on ER stress-related genes (GRP78 and CHOP) would be mediated through the inhibition of XBP-1 splicing [3].

References:

- [1]. Akyol-Salman, I., D. Lece-Serto, and O. Baykal, Topical pranoprofen 0.1% is as effective anti-inflammatory and analgesic agent as diclofenac sodium 0.1% after strabismus surgery. J Ocul Pharmacol Ther, 2007. 23(3): p. 280-3.
- [2]. Notivol, R., M. Martinez, and M.V. Bergamini, Treatment of chronic nonbacterial conjunctivitis with a cyclo-oxygenase inhibitor or a corticosteroid. Pranoprofen Study Group. Am J Ophthalmol, 1994. 117(5): p. 651-6.
- [3]. Hosoi, T., et al., Effect of pranoprofen on endoplasmic reticulum stress in the primary cultured glial cells. Neurochem Int, 2009. 54(1): p. 1-6.

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