Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Montelukast (sodium)

Catalog No: tcsc0548

Available Sizes

Size: 50mg

Size: 100mg

Size: 500mg

Specifications

CAS No:
151767-02-1

Formula:
$C_{35}H_{35}ClNNaO_3S$

Pathway:
GPCR/G Protein;Autophagy

Target:
Leukotriene Receptor;Autophagy

Purity / Grade:
>98%

Solubility:
H2O : ≥ 70 mg/mL (115.10 mM)

Alternative Names:
MK0476

Observed Molecular Weight:
608.17

Product Description

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Montelukast (sodium) is a potent, selective **$CysLT_1$** receptor antagonist.

In Vitro: Montelukast may contribute to the reduction of eosinophilic inflammation in upper-airway inflammatory diseases such as rhinitis and nasal polyposis. Montelukast has a significant inhibitory effect on FBS-induced GM-CSF, IL-6, and IL-8 secretion, but not sICAM-1, in nasal mucosa and polyp epithelial cells. Montelukast also shows an inhibitory effect (p[1].

In Vivo: Montelukast significantly reduces mild, moderate, and part of severe exacerbations in chronic mild to moderate asthma, but it has inferior efficacy to ICS or ICS plus LABA[2]. Rats with induced asthma have up-regulated NK1R expression in the airway, and montelukast can down regulate NK1R expression during airway remodeling[3]. Blockade of $CysLT_1R$ by repeated treatment with montelukast (1 or 2 mg/kg, ig, 4 weeks) reduces $A\beta_{1-42}$-induced $CysLT_1R$ expression and also suppresses $A\beta_{1-42}$-induced increments of NF-κB p65, TNF-α, IL-1β and caspase-3 activation, and Bcl-2 downregulation in the hippocampus and cortex. Correspondingly, montelukast treatment significantly improves $A\beta_{1-42}$-induced memory impairment in mice, but has little effect on normal mice[4].