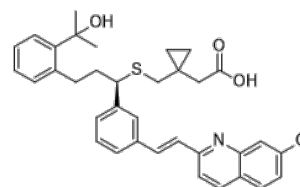


Product Name : Montelukast
Cat. No. : PC-23319
CAS No. : 158966-92-8
Molecular Formula : C₃₅H₃₆ClNO₃S
Molecular Weight : 586.19
Target : Leukotriene Receptor
Solubility : 10 mM in DMSO



Biological Activity

Montelukast (MK0476) is a potent, selective and orally active antagonist of cysteinyl leukotriene receptor 1 (CysLT1) with K_i of 0.18 nM, 4 nM and 0.52 nM in guinea pig lung, sheep lung and U937 cell plasma membrane preparations respectively. Montelukast (MK0476) is inactive versus [³H]leukotriene C4 specific binding in dimethylsulfoxide-differentiated U937 cell membranes (IC₅₀ 10 microM) and [³H]leukotriene B4 specific binding in THP-1 cell membranes (IC₅₀ 40 microM). Montelukast (MK0476) inhibited specific binding of [³H]leukotriene D4 to guinea pig lung in the presence of human serum albumin, human plasma, and squirrel monkey plasma with K_i values of 0.21, 0.19, and 0.26 nM, respectively. Montelukast (MK0476) antagonized contractions of guinea pig trachea induced by leukotriene D4 (pA₂ value 9.3; slope 0.8). Montelukast (MK0476) blocked leukotriene D4 induced bronchoconstriction in conscious squirrel monkeys, ovalbumin-induced bronchoconstriction in conscious sensitized rats (ED₅₀ 0.03 mg/kg; 4 h pretreatment), and also ascaris-induced early and late phase bronchoconstriction in conscious squirrel monkeys (0.03-0.1 mg/kg; 4 h pretreatment).

References

- Reiss TF, et al. Thorax. 1997 Jan;52(1):45-8.
Reiss TF, et al. Allergy Clin Immunol. 1996 Sep;98(3):528-34.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com