

**Catalog # 10-2597**

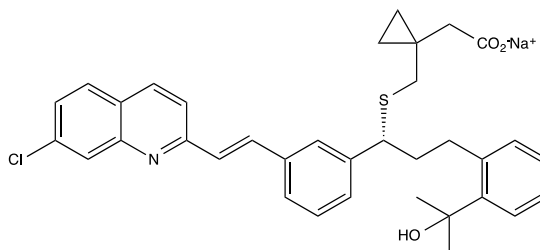
**Montelukast sodium**

151767-02-1

2-[1-[[[(1R)-1-[3-[(E)-2-(7-Chloroquinolin-2-yl)ethenyl]phenyl]-3-[2-(2-hydroxypropan-2-yl)phenyl]propyl]sulfanylmethyl]cyclopropyl]acetate, sodium salt

MK-0476

Lot # X106543



Potent, selective CysLT1 receptor (leukotriene D<sub>4</sub>) antagonist (K<sub>i</sub> = 0.18 nM).<sup>1,2</sup> Displays anti-inflammatory and anti-asthmatic effects. Clinically useful agent for treatment of chronic asthma.<sup>3</sup> Attenuates chronic brain injury after focal cerebral ischemia in rodent models.<sup>4</sup> Decreases blood brain barrier dysfunction in mouse models.<sup>5</sup> Blockade of GPR17 by montelukast elevates neural stem and progenitor proliferation.<sup>6</sup>

- 1) Lynch *et al.* (1999), *Characterization of the human cysteinyl leukotriene CysLT1 receptor*, *Nature*, **399** 789
- 2) Jones *et al.* (1995), *Pharmacology of montelukast sodium (Singulair), a potent and selective leukotriene D4 receptor antagonist*, *Can. J. Physiol. Pharmacol.*, **73** 191
- 3) Reiss *et al.* (1998), *Montelukast, a once-daily leukotriene receptor antagonist, in the treatment of chronic asthma: a multicenter, randomized, double-blind trial. Montelukast Clinical Research Study Group*; *Arch. Intern. Med.*, **158** 1213
- 4) Zhao *et al.* (2011), *Montelukast, a cysteinyl leukotriene receptor-1 antagonist, attenuates chronic brain injury after focal cerebral ischaemia in mice and rats*; *J. Pharm. Pharmacol.*, **63** 550
- 5) Lenz *et al.* (2014), *Cysteinyl leukotriene receptor (CysLT) antagonists decrease pentylenetetrazol-induced seizures and blood-brain barrier dysfunction*; *Neuroscience*, **277** 859
- 6) Huber *et al.* (2011) *Inhibition of leukotriene receptors boosts neural progenitor proliferation*; *Cell Physiol. Biochem.*, **28** 793

**PHYSICAL DATA**

Molecular Weight:	608.17
Molecular Formula:	C <sub>35</sub> H <sub>35</sub> ClNO <sub>3</sub> S Na
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 60 mg/ml) , Water (up to 30 mg/ml) or Ethanol (up to 60 mg/ml)
Physical Description:	Solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO, distilled water, or ethanol may be stored at -20°C for up to 1 month.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**