

DATA SHEET

Product Name: Montelukast sodium

Catalog #: N-3028

Alt: 2-[1-[[[(1*R*)-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

Molecular Mass: 608.2 C₃₅H₃₅ClNO₃S • Na

Analysis: >98% (HPLC); NMR (Conforms)

Supplied As: powder

Resuspension: May be dissolved in DMSO (60 mg/ml); or water (30 mg/ml); or ethanol (60 mg/ml)

Storage: Store desiccated as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 1 month.

Description: Potent, selective CysLT1 receptor (leukotriene D₄) antagonist (K_i = 0.18 nM)^{1,2}. Displays anti-inflammatory and anti-asthmatic effects. Clinically useful agent for treatment of chronic asthma³. Attenuates chronic brain injury after focal cerebral ischemia in rodent models⁴. Decreases blood brain barrier dysfunction in mouse models⁵. Blockade of GPR17 by montelukast elevates neural stem and progenitor proliferation⁶.

References:

1. Lynch, K.R., et al., (1999) *Nature*, *399*: 789
2. Jones, T.R., et al., (1995) *Can. J. Physiol. Pharmacol.*, *73*: 191
3. Reiss, T.F., et al., (1998) *Arch. Intern. Med.*, *158*: 1213
4. Zhao, R., et al., (2011) *J. Pharm. Pharmacol.*, *63*: 550
5. Lenz, Q.F., et al., *Neuroscience*, *26*: 277
6. Huber, C., et al., *Cell Physiol. Biochem.*, *28*: 793

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