E92158

ALOX5Polyclonal Antibody

Catalog Number: E92158
Amount: 100ul
Background: 5-Lipoxygenase (5-LO, ALOX5) is an important catalytic enzyme responsible for the biosynthesis of leukotriene LTA4 from arachidonic acid (1,2). Leukotriene synthesis also requires 5-lipoxygenase-activating protein (FLAP, ALOX5AP), a nuclear membrane-bound protein that binds arachidonic acid and is thought to activate 5-LO. A number of related leukotrienes (i.e. B4, C4, D4) are derived from LTA4 and together these lipid mediators function in immune reaction regulation. 5-LO is primarily expressed in polymorphonuclear leukocytes, peripheral blood monocytes, macrophages, and mast cells (1,3). Overexpression of 5-LO protein is seen in certain cancer cells and is associated with poor diagnosis (1,4). Depending upon the cell type, 5-LO is localized to either the cytosol or the nucleus of quiescent cells (5). Following stimulation, 5-LO translocates to the nucleus and associates with FLAP to catalyze LTA4 synthesis (2,3). Phosphorylation of specific residues can regulate 5-LO enzymatic activity. Phosphorylation of 5-LO at Ser523 by PKA family kinases inhibits oxygenase activity (6,7) while MAPKAP2 and ERK family kinase phosphorylation at Ser271 and Ser663 stimulates 5-LO enzymatic activity in vivo (8,9).
Species: Rabbit
Isotype: IgG
Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Synonyms: 5-LO; 5-LOX; 5LPG; LOG5; MGC163204
Immunogen: Recombinant proteinof human ALOX5
Purification: Affinity purification
Reactivity: H M R
Applications: WB IHC
Molecular Weight: 78kDa
Swiss-Prot No. : P09917
Gene ID: 240
References: 1. Woods, J.W. et al. (1995) J Clin Invest 95, 2035-46. 2. Evans, J.F. et al. (2008) Trends Pharmacol Sci 29, 72-8. 3. Radmark, O. et al. (2007) Trends Biochem Sci 32, 332-41. 4. Chen, X. et al. (2006) Curr Cancer Drug Targets 6, 613-22. 5. Werz, O. (2002) Curr Drug Targets Inflamm Allergy 1, 23-44. 6. Luo, M. et al. (2004) J Biol Chem 279, 41512-20. 7. Luo, M. et al. (2005) J Biol Chem 280, 40609-16. 8. Werz, O. et al. (2002) FASEB J 16, 1441-3. 9. Werz, O. et al. (2002) J Biol Chem 277, 14793-800.

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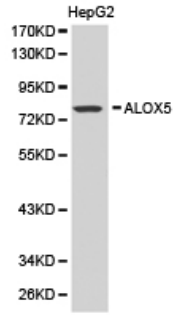
WB 1:500 - 1:2000

IHC 1:50- 1:200



Western blot analysis of extracts of HepG2cell lines, using ALOX5 antibody.

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