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LTB4DH Polyclonal Antibody

Catalog # AP70780

Product Information

Application	WB
Primary Accession	Q14914
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35870

Additional Information

Gene ID	22949
Other Names	PTGR1; LTB4DH; Prostaglandin reductase 1; PRG-1; 15-oxoprostaglandin 13-reductase; NADP-dependent leukotriene B4 12-hydroxydehydrogenase
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/5000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	PTGR1
Synonyms	LTB4DH
Function	NAD(P)H-dependent oxidoreductase involved in metabolic inactivation of pro- and anti-inflammatory eicosanoids: prostaglandins (PG), leukotrienes (LT) and lipoxins (LX) (PubMed:25619643). Catalyzes with high efficiency the reduction of the 13,14 double bond of 15- oxoPGs, including 15-oxo-PGE1, 15-oxo-PGE2, 15-oxo-PGF1-alpha and 15- oxo-PGF2-alpha (PubMed:25619643). Catalyzes with lower efficiency the oxidation of the hydroxyl group at C12 of LTB4 and its derivatives, converting them into biologically less active 12-oxo-LTB4 metabolites (By similarity) (PubMed:25619643). Reduces 15-oxo-LXA4 to 13,14 dihydro-15-oxo-LXA4, enhancing neutrophil recruitment at the inflammatory site (By similarity). May play a role in metabolic detoxification of alkenals and ketones. Reduces alpha,beta-unsaturated alkenals and ketones, particularly those with medium-chain length, showing highest affinity toward (2E)-decenal and (3E)-3-nonen-2-one (PubMed:25619643). May inactivate 4-hydroxy-2-nonenal, a cytotoxic lipid constituent of oxidized low-density lipoprotein particles (By

similarity).

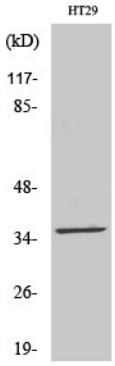
Cellular Location Cytoplasm {ECO:0000250|UniProtKB:Q29073}.

Tissue Location High expression in the kidney, liver, and intestine but not in leukocytes.

Background

Functions as 15-oxo-prostaglandin 13-reductase and acts on 15-oxo-PGE1, 15-oxo-PGE2 and 15-oxo-PGE2-alpha. Has no activity towards PGE1, PGE2 and PGE2-alpha (By similarity). Catalyzes the conversion of leukotriene B4 into its biologically less active metabolite, 12-oxo-leukotriene B4. This is an initial and key step of metabolic inactivation of leukotriene B4.

Images



Western Blot analysis of various cells using LTB4DH Polyclonal Antibody