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PTGEs/Prostaglandin E Synthase Rabbit pAb

Catalog # AP97119

Product Information

Application	WB
Primary Accession	O14684
Other Accession	O14684
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17102
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PTGEs
Epitope Specificity	85-152/152
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the MAPEG family.
SUBUNIT	Homotrimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Prostaglandin E synthase catalyses conversion of COX derived PGH2 to PGE2. It is a member of the MAPEG family. It may contribute to the pathogenesis of collagen induced arthritis and mediate acute pain during inflammatory responses. The protein encoded by this gene is a glutathione-dependent prostaglandin E synthase. The expression of this gene has been shown to be induced by proinflammatory cytokine interleukin 1 beta (IL1B). Its expression can also be induced by tumor suppressor protein TP53, and may be involved in TP53 induced apoptosis. Knockout studies in mice suggest that this gene may contribute to the pathogenesis of collagen-induced arthritis and mediate acute pain during inflammatory responses.

Additional Information

Gene ID	9536
Other Names	MPGES-1; PGES; MGST-IV; MGST1-L1; MGST1L1; MPGES; PIG12; PP102; PP1294; TP53I12; 2410099E23Rik; D2Ertd369e; zgc:110052; PTGES_HUMAN; PTGES; Glutathione peroxidase PTGES; Glutathione transferase PTGES; Microsomal glutathione S-transferase 1-like 1 (MGST1-L1); Microsomal prostaglandin E synthase 1 (MPGES-1); p53-induced gene 12 protein; 5.3.99.3; MPGES1; PTGES_MOUSE; Microsomal prostaglandin E synthase 1; prostaglandin E synthase; microsomal glutathione S-transferase 1-like 1; tumor protein p53 inducible protein 12; p53-induced gene 12; microsomal prostaglandin E synthase-1; glutathione S-transferase 1-like 1; MGST1-like 1

Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PTGES
Function	Terminal enzyme of the cyclooxygenase (COX)-2-mediated prostaglandin E2 (PGE2) biosynthetic pathway. Catalyzes the glutathione-dependent oxidoreduction of prostaglandin endoperoxide H2 (PGH2) to prostaglandin E2 (PGE2) in response to inflammatory stimuli (PubMed:10377395, PubMed:10869354, PubMed:12244105, PubMed:12460774, PubMed:12672824, PubMed:17519235, PubMed:18682561). Similarly, catalyzes the conversion of PGH3 (derived from eicosapentaenoate (EPA, C20:5n-3)) to PGE3, though PGH2 remains the preferred substrate (PubMed:17519235). Plays a key role in inflammation response, fever and pain (By similarity). Also catalyzes the oxidoreduction of endocannabinoids into prostaglandin glycerol esters and PGG2 into 15- hydroperoxy-PGE2 (PubMed:12244105, PubMed:12672824). In addition, displays low glutathione transferase and glutathione-dependent peroxidase activities, toward 1-chloro-2,4-dinitrobenzene and 5- hydroperoxyicosatetraenoic acid (5-HPETE), respectively (PubMed:12672824).
Cellular Location	Membrane; Multi-pass membrane protein. Cytoplasm, perinuclear region. Note=Colocalizes with PTGS1/COX-1 and PTGS2/COX-2 in the perinuclear compartment

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.