

**PTGES Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8589a****Specification**

---

**PTGES Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [O14684](#)**PTGES Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 9536**Other Names**

Prostaglandin E synthase, Microsomal glutathione S-transferase 1-like 1, MGST1-L1, Microsomal prostaglandin E synthase 1, MPGES-1, p53-induced gene 12 protein, PTGES, MGST1L1, MPGES1, PGES, PIG12

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8589a](/products/AP8589a) was selected from the N-term region of human PTGES. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**PTGES Antibody (N-term) Blocking Peptide - 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: [18682561](http://www.uniprot.org/citations/18682561), PubMed: [10377395](http://www.uniprot.org/citations/10377395), PubMed: [12672824](http://www.uniprot.org/citations/12672824), PubMed: [12460774](http://www.uniprot.org/citations/12460774), PubMed: [10869354](http://www.uniprot.org/citations/10869354), PubMed: [12244105](http://www.uniprot.org/citations/12244105)). Plays a key role in inflammation response, fever and pain (By similarity). Catalyzes also the oxidoreduction of

endocannabinoids into prostaglandin glycerol esters and PGG2 into 15-hydroperoxy-PGE2 (PubMed:<a href="http://www.uniprot.org/citations/12244105" target="\_blank">12244105</a>, PubMed:<a href="http://www.uniprot.org/citations/12672824" target="\_blank">12672824</a>). 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:<a href="http://www.uniprot.org/citations/12672824" target="\_blank">12672824</a>).

#### **Cellular Location**

Membrane; Multi-pass membrane protein. Cytoplasm, perinuclear region. Note=Colocalizes with PTGS1/COX-1 and PTGS2/COX-2 in the perinuclear compartment

#### **PTGES Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

#### **PTGES Antibody (N-term) Blocking Peptide - Images**

#### **PTGES Antibody (N-term) Blocking Peptide - Background**

PTGES is a glutathione-dependent prostaglandin E synthase. The expression of it 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 it may contribute to the pathogenesis of collagen-induced arthritis and mediate acute pain during inflammatory responses.

#### **PTGES Antibody (N-term) Blocking Peptide - References**

Mattila,S.,et.al.,Neuropathology 29 (2), 156-165 (2009)Menon,R.,et.al., Reprod. Biol. Endocrinol. 7, 62 (2009)Jakobsson,P.J.,et.al.,Protein Sci. 8 (3), 689-692 (1999)