PRODUCT INFORMATION

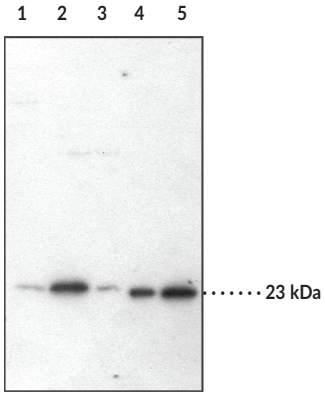
Prostaglandin E Synthase (cytosolic) Polyclonal Antibody

Item No. 160150

Overview and Properties

Contents:	This vial contains lyophilized, peptide affinity-purified antibody.
Synonyms:	p23, cPGE Synthase, cPGES, Hsp90 Co-chaperone, Teolomerate-binding protein p23
Immunogen:	Synthetic peptide from an internal region of human protein cPGES
Cross Reactivity:	(-) mPGES
Species Reactivity:	(+) Human, mouse, and ovine; other species not tested
Uniprot No.:	Q15185
Form:	Solid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, when reconstituted in 500 µl double distilled water
Host:	Rabbit
Application:	Western blot (WB) at a recommended starting dilution of 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: Ram seminal vesicle microsomes (30 µg)
Lane 2: Jurkat (murine) cell lysate
Lane 3: A549 cell lysate (30 µg)
Lane 4: Recombinant human cPGES (0.04 µg)
Lane 5: Recombinant human cPGES (0.10 µg)

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Description

Prostaglandin E synthase (PGES) catalyzes the isomerization of PGH_2 (Item No. 17020) to PGE_2 (Item No. 14010). Cytosolic and microsomal PGES enzymes have been cloned and characterized. Cytosolic PGES (cPGES) is a glutathione-dependent enzyme with a predicted size of 18.6 kDa (23 kDa on SDS-PAGE). The enzyme is expressed in a wide variety of tissues and cells, the levels of which are unaffected by treatment with IL-1β and TNF-α.[1] However, enzyme expression increases approximately 3-fold in rat brain following LPS treatment.[1] Microsomal PGES (mPGES) is a 16 kDa protein expressed in a variety of tissues including prostate, testes, and small intestine, as well as in A549 and HeLa cells.[2] In contrast to cPGES, mPGES protein expression is increased in A549 cells following treatment with IL-1β.[2] The two enzymes show <10% homology at the amino acid level.

References

1. Tanioka, T., Nakatani, Y., Semmyo, N., *et al.* Molecular identification of cytosolic prostaglandin E_2 synthase that is functionally coupled with cyclooxygenase-1 immediate prostaglandin E_2 biosynthesis. *J. Biol. Chem.* **275**, 32775-32782 (2000).
2. Jakobsson, P.-J., Thorén, S., Morgenstern, R., *et al.* Identification of human prostaglandin E synthase: A microsomal, glutathione-dependent, inducible enzyme, constituting a potential novel drug target. *Proc. Natl. Acad. Sci. USA* **96**, 7220-7225 (1999).

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