

# PRODUCT INFORMATION



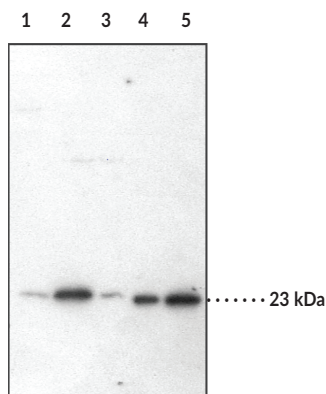
## Prostaglandin E Synthase (cytosolic) Polyclonal Antibody

Item No. 160150

### Overview and Properties

<b>Contents:</b>	This vial contains lyophilized, peptide affinity-purified antibody.
<b>Synonyms:</b>	p23, cPGE Synthase, cPGES, Hsp90 Co-chaperone, Teolomerate-binding protein p23
<b>Immunogen:</b>	Synthetic peptide from an internal region of human protein cPGES
<b>Cross Reactivity:</b>	(-) mPGES
<b>Species Reactivity:</b>	(+) Human, mouse, and ovine; other species not tested
<b>Uniprot No.:</b>	Q15185
<b>Form:</b>	Solid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	TBS, pH 7.4, when reconstituted in 500 µl double distilled water
<b>Host:</b>	Rabbit
<b>Application:</b>	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)

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Prostaglandin E synthase (PGES) catalyzes the isomerization of  $\text{PGH}_2$  (Item No. 17020) to  $\text{PGE}_2$  (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-1 $\beta$  and TNF- $\alpha$ .<sup>1</sup> However, enzyme expression increases approximately 3-fold in rat brain following LPS treatment.<sup>1</sup> 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.<sup>2</sup> In contrast to cPGES, mPGES protein expression is increased in A549 cells following treatment with IL-1 $\beta$ .<sup>2</sup> The two enzymes show <10% homology at the amino acid level.

## References

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1. Tanioka, T., Nakatani, Y., Semmyo, N., *et al.* Molecular identification of cytosolic prostaglandin E<sub>2</sub> synthase that is functionally coupled with cyclooxygenase-1 immediate prostaglandin E<sub>2</sub> 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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