

PRODUCT INFORMATION

Caspase-3 (human) Blocking Peptide

Item No. 360745

Overview and Properties

Contents:	This vial contains 200 µg of lyophilized peptide.
Synonyms:	cPGES, cPGE Synthase, Hsp90 Co-chaperone, p23, Teolomerate-binding protein p23
Storage:	-20°C (as supplied)
Stability:	≥3 years

Description

Prostaglandin E synthase (PGE synthase) catalyzes the isomerization of PGH₂ to PGE₂. Cytosolic and microsomal PGE synthase enzymes have been cloned and characterized. Cytosolic PGE synthase (cPGE synthase) is a glutathione-dependent enzyme with a predicted size of 18.6 kDa (migrates at 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 TNFα.¹ However, enzyme expression increases approximately 3-fold in rat brain following LPS treatment.¹ Microsomal PGE synthase 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 cPGE synthase, microsomal PGE synthase protein expression is increased in A549 cells following treatment with IL-1β.² The two enzymes show < 10% homology at the amino acid level.

Procedures

This vial contains 200 µg of lyophilized peptide derived from the human cytosolic PGE Synthase sequence (amino acids 58-67; CIDPNDKSKHK).¹ This peptide was used as an antigen for production of the human cytosolic PGE synthase (cytosolic) Polyclonal Antibody (Item No. 160150) and can be used in conjunction with this antibody to block protein-antibody complex formation during immunochemical analysis for cytosolic PGE Synthase.

To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the PGE Synthase (cytosolic) Polyclonal Antibody (Item No. 160150) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20 µl of antibody and 20 µl of peptide.*
2. Incubate for one hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

References

1. Tanioka, T., Nakatani, Y., Semmyo, N., *et al. J. Biol. Chem.* **275**, 32775-32782 (2000).
2. Jakobsson, P.-J., Thorén, S., Morgenstern, R., *et al. Proc. Natl. Acad. Sci. USA* **96**, 7220-7225 (1999).

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.

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