

PRODUCT INFORMATION



Prostaglandin I Synthase Monoclonal Antibody (Clone 3C8)

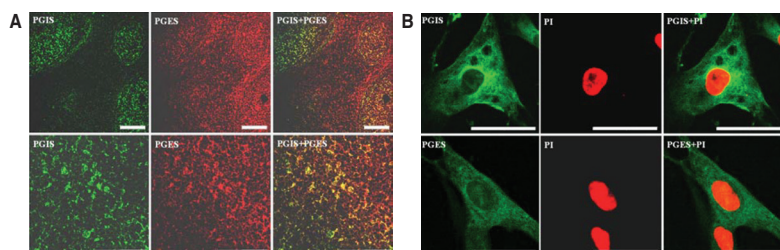
Item No. 10247

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Overview and Properties

Contents:	This vial contains 200 µg of lyophilized protein G-purified monoclonal antibody.
Synonyms:	PGIS, Prostacyclin Synthase
Immunogen:	Cell surface PGIS from follicular dendritic cell line HK
Species Reactivity:	(+) Human, mouse, rat, other species not tested
Uniprot No.:	Q16647
Form:	Lyophilized solid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	TBS, pH 7.4 when resuspended in 500 µl double distilled water
Clone:	3C8
Host:	Mouse
Applications:	Flow cytometry (FC), Immunocytochemistry (ICC), Immunohistochemistry (IHC), Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution for WB is 1:200. Starting dilutions for FC, ICC, IHC, and IP are to be determined by end user. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Image



Human FDC express COX, PGES, and PGIS. **A**, Frozen tonsil sections were double stained with anti-PGIS (Clone 3C8, Item No. 10247) and anti-PGES (Clone 6C6, Item No. 10004350) monoclonal antibodies for analysis by confocal microscopy. **Lower panels**, Magnified pictures of a part of germinal center area. The scale bar, 100 µm. **B**, HK cells were cultured in chamber slides and stained with either anti-PGIS or anti-PGES Abs. The slides were observed by confocal microscopy after nuclear staining with propidium iodide. Scale bars, 50 µm. Data from J. Choe.²

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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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Prostaglandin I synthase (PGIS) catalyzes the isomerization of PGH_2 to PGI_2 . PGI_2 (prostacyclin) is a potent vasodilator and inhibitor of platelet aggregation. PGIS is a membrane-bound hemoprotein localized primarily in endothelial cells.¹ The cloned bovine and human enzymes contain 500 amino acids and a calculated molecular mass of 56,629 and 57,103, respectively.²⁻⁴ Northern blot analysis reveals that the mRNA for PGIS is expressed in a wide variety of human tissues and is particularly abundant in ovary, heart, skeletal muscle, lung, and prostate.²

References

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2. Pereira, B., Wu, K.K., and Wang, L.-H. Molecular cloning and characterization of bovine prostacyclin synthase. *Biochem. Biophys. Res. Commun.* **203(1)**, 59-66 (1994).
3. Hara, S., Miyata, A., Yokoyama, C., *et al.* *J. Biol. Chem.* Isolation and molecular cloning of prostacyclin synthase from bovine endothelial cells. **269(31)**, 19897-19903 (1994).
4. DeWitt, D.L. and Smith, W.L. Purification of prostacyclin synthase from bovine aorta by immunoaffinity chromatography. Evidence that the enzyme is a hemoprotein. *J. Biol. Chem.* **258(5)**, 3285-3293 (1983).

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1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM