

DESCRIPTION

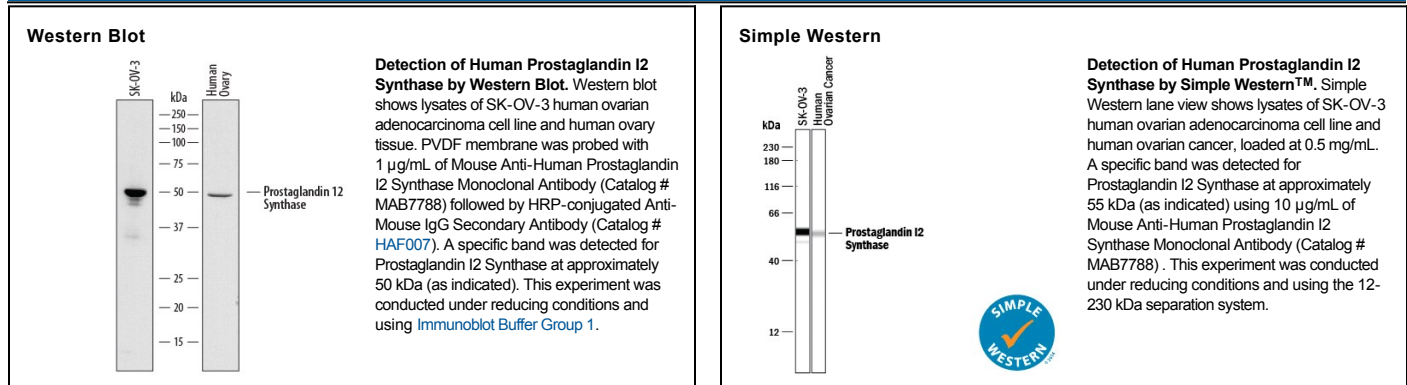
Species Reactivity	Human
Specificity	Detects human Prostaglandin I2 Synthase in ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 852307
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Prostaglandin I2 Synthase Arg21-Pro500 Accession # Q16647
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

PTGIS (Prostacyclin synthase; also CYP8A1, PGIS and Prostaglandin I2 synthase) is a 50-52 kDa (57 kDa predicted) microsomal, integral membrane member of Family 8 in the cytochrome P450 superfamily of molecules. It is expressed by skeletal and smooth muscle, fibroblasts, macrophages and endothelium. Prostaglandin I2/prostacyclin and thromboxane A2/TXA2 are two lipid mediators that are derived from the same precursor (PGH2). Acting upon PGH2, TXA2 is created through the action of TX synthase, while PGI2 is generated through the action of PTGIS/PGIS. Although they share a common precursor, they exhibit opposite effects on the vasculature, with PGI2 reported to block platelet aggregation, induce vasodilation, and inhibit smooth muscle proliferation. It apparently does so by binding to either the IP receptor or PPARγ. Human PTGIS is 500 amino acids (aa) in length. It is a single span transmembrane protein that contains an N-terminal transmembrane segment (aa 1-20) coupled to a lengthy 480 aa cytoplasmic region. Over aa 21-500, human PTGIS shares 86% aa sequence identity with mouse PTGIS.