

Lot #XXXXX

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MATERIAL DATA SHEET

Anti-p23/PTGES3 Monoclonal Antibody Cat. # A-450

Prostaglandin E Synthase 3 (also known as Cytosolic prostaglandin E2 synthase, HSP90 co-chaperone, Progesterone receptor complex p23, Telomerase-binding protein p23, or p23) is a glutathione-dependent enzyme found in the cyclooxygenase-1-mediated PGE2 biosynthetic pathway. This protein is highly conserved in eukaryotes and in humans it is expressed in most tissues other than striated muscle. Through its prostaglandin synthase activity, p23 contributes to the production of prostaglandin E2 and has a role in maintenance of tissue homeostasis. In addition to its catalytic activity in the prostaglandin biosynthesis pathway, p23 serves as a co-chaperone to HSP90 (Heat Shock Protein 90) in various biological functions. The p23/HSP90 complex is required for efficient telomerase assembly *in vitro* and *in vivo*. It has also been demonstrated that p23 and HSP90 localize to genomic response elements in a hormone-dependent manner, and may promote disassembly of transcriptional regulatory complexes in response to changes in cellular signaling pathways. p23 protein is up-regulated in several cancers, notably breast cancer.

Product Information

Quantity:	50 µg
Source:	Monoclonal Mouse IgG ₁ Clone # JJ6
Antigen:	Recombinant protein corresponding to full length human PTGES3.
Stock:	0.5 mg/ml in PBS pH 7.4, 50% glycerol, 0.09% sodium azide

Use & Storage

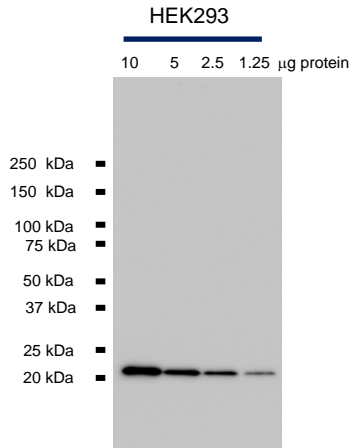
Use:	Recommended dilution range for Western blot analysis is 1:2000.
Storage:	Store at -20°C.

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Sample Western Blot Data



NP40-soluble proteins from human embryonic kidney (HEK) cells were diluted in reducing SDS-PAGE Sample Buffer prior to separation on 4-20% gradient gels. Western blots utilizing PVDF membranes were developed using anti- p23/PTGES3 (A-450 antibody) at 0.2 µg/ml and HRP-labeled anti-mouse (R&D Systems # HAF007) secondary at 1:2000 dilution. A single band of appropriate size was detected in the HEK293 cell extract.

Literature

- References:** Freeman B.C. & Yamamoto K.R. (2002) *Science* **296**: 2232-2235
Forsythe H.L., *et al.* (2001) *J. Biol. Chem.* **276**: 15571-15574
Patwardhan C.A., *et al.* (2013) *J. Biol. Chem.* **288**: 7313-7325

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