

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human p23/PTGES3 in direct ELISAs. Detects human and mouse p23/PTGES3 in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 998327
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human p23PTGES3 Gln21-Glu160 Accession # Q15185
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

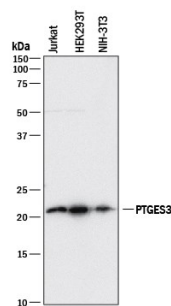
## APPLICATIONS

**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
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	5-25 µg/mL	See Below

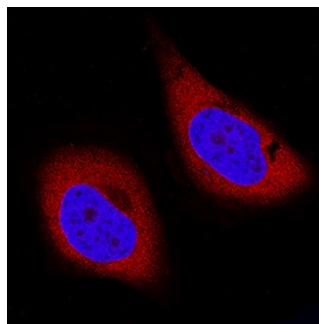
## DATA

### Western Blot



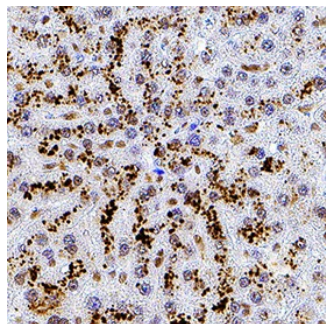
**Detection of Human and Mouse p23/PTGES3 by Western Blot.** Western blot shows lysates of Jurkat human acute T cell leukemia cell line, HEK293T human embryonic kidney cell line, and NIH-3T3 mouse embryonic fibroblast cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Mouse p23/PTGES3 Monoclonal Antibody (Catalog # MAB100391) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for p23/PTGES3 at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunocytochemistry



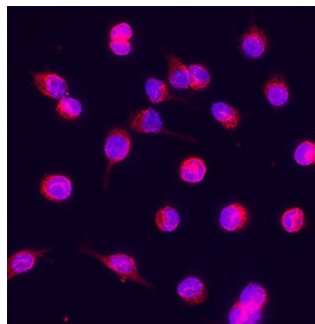
**p23/PTGES3 in HeLa Human Cell Line.** p23/PTGES3 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse p23/PTGES3 Monoclonal Antibody (Catalog # MAB100391) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## Immunohistochemistry



**p23/PTGES3 in Human Liver.**  
p23/PTGES3 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human/Mouse p23/PTGES3 Monoclonal Antibody (Catalog # MAB100391) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

## Immunocytochemistry



**p23/PTGES3 in Raw 264.7 Mouse Monocyte/Macrophage Cell Line.** p23/PTGES3 was detected in immersion fixed RAW 264.7 mouse monocyte/macrophage cell line using Mouse Anti-Human/Mouse p23/PTGES3 Monoclonal Antibody (Catalog # MAB100391) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

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.