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Anti-p23/PTGES3 Antibody Picoband™ (monoclonal, 9D3D1)

Catalog # ABO16258

Product Information

Application	WB, IF, ICC, FC
Primary Accession	Q15185
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-p23/PTGES3 Antibody Picoband™ (monoclonal, 9D3D1) . Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 □g/ml.

Additional Information

Gene ID	10728
Other Names	Prostaglandin E synthase 3, 5.3.99.3, Cytosolic prostaglandin E2 synthase, cPGES, Hsp90 co-chaperone, Progesterone receptor complex p23, Telomerase-binding protein p23, PTGES3, P23, TEBP
Calculated MW	18697
Application Details	Western blot, 0.25-0.5 □g/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 □g/ml, Human Flow Cytometry, 1-3 □g/1x10^6 cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Clone Names	Clone: 9D3D1
Immunogen	E.coli-derived human p23/PTGES3 recombinant protein (Position: M1-K79).
Purification	Immunogen affinity purified.
Storage	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Protein Information

Name	PTGES3
Synonyms	P23, TEBP
Function	Cytosolic prostaglandin synthase that catalyzes the oxidoreduction of prostaglandin endoperoxide H2 (PGH2) to prostaglandin E2 (PGE2) (PubMed:10922363). Molecular chaperone that localizes to genomic response elements in a hormone-dependent manner and disrupts receptor-mediated transcriptional activation, by promoting disassembly of transcriptional regulatory complexes (PubMed:11274138, PubMed:12077419). Facilitates HIF alpha proteins hydroxylation via interaction with EGLN1/PHD2, leading to recruit EGLN1/PHD2 to the HSP90 pathway (PubMed:24711448).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q3ZBF7}.

Background

Prostaglandin E synthase 3 (cytosolic)is anenzymethat in humans is encoded by the PTGES3gene. It is mapped to 12q13.3; 12. This gene encodes an enzyme that converts prostaglandin endoperoxide H2 (PGH2) to prostaglandin E2 (PGE2). This protein functions as a co-chaperone with heat shock protein 90 (HSP90), localizing to response elements in DNA and disrupting transcriptional activation complexes. Alternative splicing results in multiple transcript variants. There are multiple pseudogenes of this gene on several different chromosomes.

Images

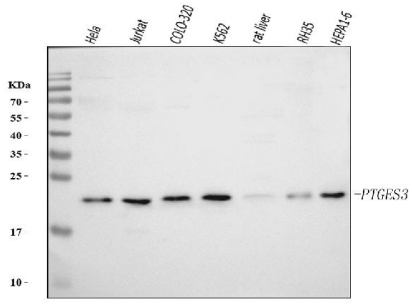


Figure 1. Western blot analysis of p23/PTGES3 using anti-p23/PTGES3 antibody (M04136-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.
The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human COLO-320 whole cell lysates,
Lane 4: human K562 whole cell lysates,
Lane 5: rat liver tissue lysates,
Lane 6: rat RH35 whole cell lysates,
Lane 7: mouse HEPA1-6 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-p23/PTGES3 antigen affinity purified monoclonal antibody (Catalog # M04136-3) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for p23/PTGES3 at approximately 23 kDa. The expected band size for p23/PTGES3 is at 23 kDa.

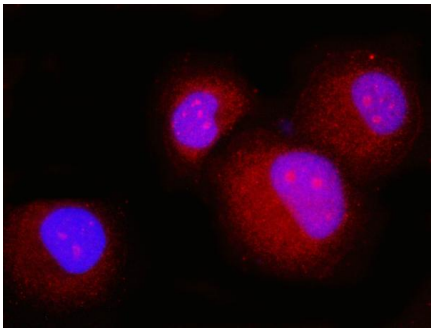


Figure 2. IF analysis of p23/PTGES3 using anti-p23/PTGES3 antibody (M04136-3).
p23/PTGES3 was detected in an immunocytochemical section of T-47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-p23/PTGES3 Antibody (M04136-3) overnight at 4°C. DyLight®594 Conjugated Goat Anti-mouse IgG (BA1141) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

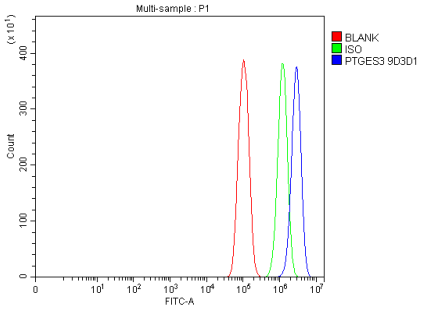


Figure 3. Flow Cytometry analysis of PC-3 cells using anti-p23/PTGES3 antibody (M04136-3).
Overlay histogram showing PC-3 cells stained with M04136-3 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-p23/PTGES3 Antibody (M04136-3, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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