

P23 (B-5): sc-377392

BACKGROUND

P23, also known as PTGES3 (prostaglandin E synthase 3) or TEBP (telomerase-binding protein p23), is a ubiquitously expressed protein that functions as a cochaperone and plays an important role in signal transduction. One of several proteins in the HSP 90-based molecular chaperone complex, P23 promotes the breakdown of transcriptional regulatory complexes by disrupting receptor-mediated transcriptional activation. P23 acts in a hormone-dependent manner to chaperone estrogen receptor α (ER α), a steroid complex, to its mature form and to regulate the expression of ER α -related genes. Localized to the cytoplasm, P23 interacts with the glucocorticoid receptor (GR) and, through disassembly of the GR transcription machinery, is thought to inhibit GR-dependent transcription. The involvement of P23 in various steroid receptor-mediated pathways suggests close involvement in signal transduction and regulation of cellular processes. Upregulation of P23 is implicated in the invasion and metastasis of various cancers.

REFERENCES

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- Freeman, B.C. and Yamamoto, K.R. 2002. Disassembly of transcriptional regulatory complexes by molecular chaperones. *Science* 296: 2232-2235.
- Felts, S.J. and Toft, D.O. 2003. p23, a simple protein with complex activities. *Cell Stress Chaperones* 8: 108-113.
- Tanioka, T., et al. 2003. Regulation of cytosolic prostaglandin E2 synthase by 90-kDa heat shock protein. *Biochem. Biophys. Res. Commun.* 303: 1018-1023.
- Gausdal, G., et al. 2004. Caspase-dependent, geldanamycin-enhanced cleavage of co-chaperone p23 in leukemic apoptosis. *Leukemia* 18: 1989-1996.
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CHROMOSOMAL LOCATION

Genetic locus: PTGES3 (human) mapping to 12q13.3; Ptges3 (mouse) mapping to 10 D3.

SOURCE

P23 (B-5) is a mouse monoclonal antibody raised against amino acids 26-85 mapping near the N-terminus of P23 of human origin.

PRODUCT

Each vial contains 200 μ g IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

P23 (B-5) is recommended for detection of P23 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

P23 (B-5) is also recommended for detection of P23 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for P23 siRNA (h): sc-62741, P23 siRNA (m): sc-62742, P23 shRNA Plasmid (h): sc-62741-SH, P23 shRNA Plasmid (m): sc-62742-SH, P23 shRNA (h) Lentiviral Particles: sc-62741-V and P23 shRNA (m) Lentiviral Particles: sc-62742-V.

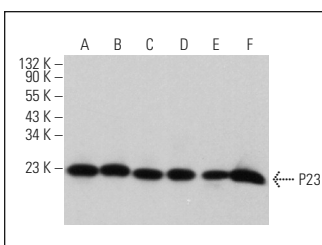
Molecular Weight of P23: 23 kDa.

Positive Controls: A549 cell lysate: sc-2413, WI-38 whole cell lysate: sc-364260 or Neuro-2A whole cell lysate: sc-364185.

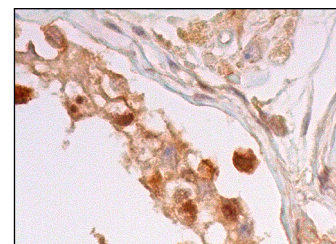
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



P23 (B-5): sc-377392. Western blot analysis of P23 expression in A549 (A), WI-38 (B), T98G (C), Neuro-2A (D), AMJ2-C8 (E) and C6 (F) whole cell lysates.



P23 (B-5): sc-377392. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic, membrane and nuclear staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.