

P23 (G-7): sc-376725

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.

CHROMOSOMAL LOCATION

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

SOURCE

P23 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 33-67 near the N-terminus of P23 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376725 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

P23 (G-7) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). P

P23 (G-7) 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.

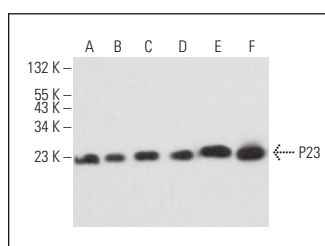
Molecular Weight of P23: 23 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, IMR-32 cell lysate: sc-2409 or A549 cell lysate: sc-2413.

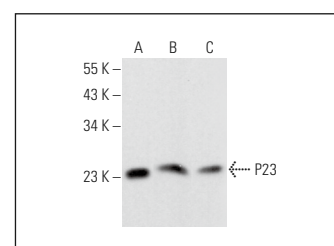
RECOMMENDED SUPPORT REAGENTS

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.

DATA



P23 (G-7): sc-376725. Western blot analysis of P23 expression in IMR-32 (A), Jurkat (B), NIH/3T3 (C), Hep G2 (D) and F9 (E) whole cell lysates and mouse testis tissue extract (F). Detection reagent used: m-IgG κ BP-HRP: sc-516102.



P23 (G-7): sc-376725. Western blot analysis of P23 expression in IMR-32 (A) and A549 (B) whole cell lysates and mouse testis tissue extract (C).

SELECT PRODUCT CITATIONS

- Chen, X., et al. 2015. Terazosin activates PGK1 and Hsp90 to promote stress resistance. *Nat. Chem. Biol.* 11: 19-25.
- Hong, Y., et al. 2019. Amelioration of muscle wasting by Glucagon-like peptide-1 receptor agonist in muscle atrophy. *J. Cachexia Sarcopenia Muscle* 10: 903-918.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.