

P23 (JJ6): sc-101496

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 (JJ6) is a mouse monoclonal antibody raised against P23 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

P23 (JJ6) is available conjugated to agarose (sc-101496 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101496 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101496 PE), fluorescein (sc-101496 FITC), Alexa Fluor® 488 (sc-101496 AF488), Alexa Fluor® 546 (sc-101496 AF546), Alexa Fluor® 594 (sc-101496 AF594) or Alexa Fluor® 647 (sc-101496 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101496 AF680) or Alexa Fluor® 790 (sc-101496 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

P23 (JJ6) is recommended for detection of P23 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

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.

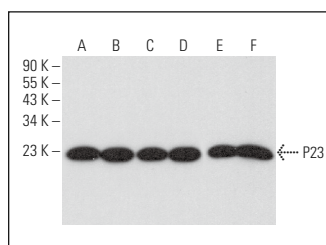
Molecular Weight of P23: 23 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, HEK293 whole cell lysate: sc-45136 or HeLa whole cell lysate: sc-2200.

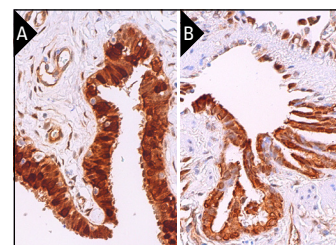
RECOMMENDED SUPPORT REAGENTS

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) 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 (JJ6): sc-101496. Western blot analysis of P23 expression in 3T3-L1 (A), HeLa (B), HEK293 (C), Jurkat (D) and Hep G2 (E) whole cell lysates and mouse testis tissue extract (F). Detection reagent used: m-IgG κ BP-HRP: sc-516102.



P23 (JJ6): sc-101496. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and nuclear staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells (B).

SELECT PRODUCT CITATIONS

1. Anson, F., et al. 2021. Exogenous introduction of initiator and executioner caspases results in different apoptotic outcomes. *JACS Au* 1: 1240-1256.
2. Yilmaz, S., et al. 2022. The role of cycloastragenol at the intersection of NRF2/ARE, telomerase, and proteasome activity. *Free Radic. Biol. Med.* 188: 105-116.
3. Wang, C., et al. 2023. PF05DoDA disrupts hepatic homeostasis primarily through glucocorticoid signaling inhibition. *J. Hazard. Mater.* 447: 130831.
4. Ercan, H., et al. 2023. A practical and analytical comparative study of gel-based top-down and gel-free bottom-up proteomics including unbiased proteoform detection. *Cells* 12: 747.

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.