

# 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  $\alpha$  (ER $\alpha$ ), a steroid complex, to its mature form and to regulate the expression of ER $\alpha$ -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; Ptgcs3 (mouse) mapping to 10 D3.

## SOURCE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> 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  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101496 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101496 PE), fluorescein (sc-101496 FITC), Alexa Fluor<sup>®</sup> 488 (sc-101496 AF488), Alexa Fluor<sup>®</sup> 546 (sc-101496 AF546), Alexa Fluor<sup>®</sup> 594 (sc-101496 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-101496 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-101496 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-101496 AF790), 200  $\mu$ 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  $\mu$ g per 100-500  $\mu$ 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.

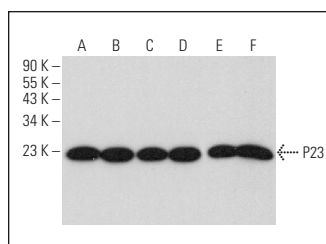
Molecular Weight of P23: 23 kDa.

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

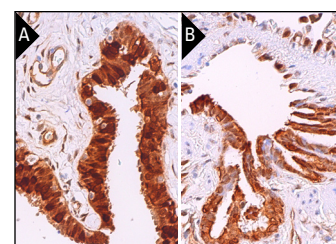
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  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 $\kappa$  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

- Anson, F., et al. 2021. Exogenous introduction of initiator and executioner caspases results in different apoptotic outcomes. *JACS Au* 1: 1240-1256.
- 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.
- Wang, C., et al. 2023. PF05DoDA disrupts hepatic homeostasis primarily through glucocorticoid signaling inhibition. *J. Hazard. Mater.* 447: 130831.
- 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](http://www.scbt.com) for detailed protocols and support products.