SANTA CRUZ BIOTECHNOLOGY, INC.

P23 (16): sc-136021



BACKGROUND

P23, also known as PTGES3 (prostaglandin E synthase 3) or TEBP (telomerasebinding 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 receptormediated 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

- Muñoz, M.J., et al. 1999. The identification of Wos2, a P23 homologue that interacts with Wee 1 and Cdc2 in the mitotic control of fission yeasts. Genetics 153: 1561-1572.
- 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 cochaperone P23 in leukemic apoptosis. Leukemia 18: 1989-1996.
- Mollerup, J. and Berchtold, M.W. 2005. The cochaperone P23 is degraded by caspases and the proteasome during apoptosis. FEBS Lett. 579: 4187-4192.
- 7. Picard, D. 2006. Intracellular dynamics of the HSP 90 cochaperone P23 is dictated by Hsp90. Exp. Cell Res. 312: 198-204.

CHROMOSOMAL LOCATION

Genetic locus: Ptges3 (mouse) mapping to 10 D3.

SOURCE

P23 (16) is a mouse monoclonal antibody raised against amino acids 1-94 of P23 of mouse origin.

PRODUCT

Each vial contains 50 μg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

P23 (16) is recommended for detection of P23 of mouse and rat 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of P23: 23 kDa.

Positive Controls: mouse testis extract: sc-2405, NIH/3T3 + heat shock cell lysate: sc-2217 or NIH/3T3 whole cell lysate: sc-2210.

DATA





P23 (16): sc-136021. Western blot analysis of P23 expression in mouse testis tissue extract.

P23 (16): sc-136021. Immunofluorescence staining of rat kidney cells showing nuclear and cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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