

HRPAP20 (E-17): sc-68189

BACKGROUND

HRPAP20 (UPF0240 protein C6orf66, hormone-regulated proliferation-associated protein 20) is a 175 amino acid protein encoded by the human gene C6ORF66. HRPAP20 is a novel hormone-regulated, proliferation-associated protein. In tumor cell lines, constitutive HRPAP20 expression enhanced proliferation and suppressed apoptosis, characteristics frequently associated with malignant progression. Invasive breast cancer cell lines and human breast tumor specimens express elevated HRPAP20, which can increase malignant cell invasion in transfection experiments using such cell lines as MCF-7 and MDA-MB-231. Transfection with HRPAP20 will increase secretion of matrix metalloproteinase-9 (MMP-9). Conversely, knockdown of HRPAP20 with small interfering RNA will reduce invasion and inhibit secretion of MMP-9.

REFERENCES

1. Jones, J.L., et al. 2003. Primary breast myoepithelial cells exert an invasion-suppressor effect on breast cancer cells via paracrine down-regulation of MMP expression in fibroblasts and tumour cells. *J. Pathol.* 201: 562-572.
2. Karp, C.M., et al. 2004. Identification of HRPAP20: a novel phosphoprotein that enhances growth and survival in hormone-responsive tumor cells. *Cancer Res.* 64: 1016-1025.
3. Larkins, T.L., et al. 2006. Inhibition of cyclooxygenase-2 decreases breast cancer cell motility, invasion and matrix metalloproteinase expression. *BMC Cancer* 6: 181-181.
4. Jiang, W.G., et al. 2006. Expression of membrane type-1 matrix metalloproteinase, MT1-MMP in human breast cancer and its impact on invasiveness of breast cancer cells. *Int. J. Mol. Med.* 17: 583-590.
5. Byun, H.J., et al. 2006. A splice variant of CD99 increases motility and MMP-9 expression of human breast cancer cells through the AKT-, ERK-, and JNK-dependent AP-1 activation signaling pathways. *J. Biol. Chem.* 281: 34833-34847.
6. Tozlu-Kara, S., et al. 2007. Oligonucleotide microarray analysis of estrogen receptor α -positive postmenopausal breast carcinomas: identification of HRPAP20 and timeless as outstanding candidate markers to predict the response to tamoxifen. *J. Mol. Endocrinol.* 39: 305-318.
7. Karp, C.M., et al. 2007. HRPAP20: a novel calmodulin-binding protein that increases breast cancer cell invasion. *Oncogene* 26: 1780-1788.

CHROMOSOMAL LOCATION

Genetic locus: NDUFAF4 (human) mapping to 6q16.1; Ndufaf4 (mouse) mapping to 4 A3.

SOURCE

HRPAP20 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HRPAP20 of mouse origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-68189 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HRPAP20 (E-17) is recommended for detection of HRPAP20 of mouse 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)], 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).

HRPAP20 (E-17) is also recommended for detection of HRPAP20 in additional species, including equine.

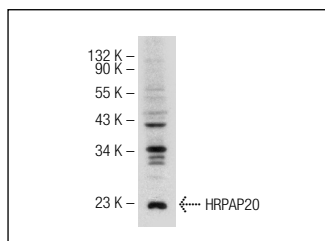
Suitable for use as control antibody for HRPAP20 siRNA (h): sc-62476, HRPAP20 siRNA (m): sc-155906, HRPAP20 shRNA Plasmid (h): sc-62476-SH, HRPAP20 shRNA Plasmid (m): sc-155906-SH, HRPAP20 shRNA (h) Lentiviral Particles: sc-62476-V and HRPAP20 shRNA (m) Lentiviral Particles: sc-155906-V.

Molecular Weight (predicted) of HRPAP20: 20 kDa.

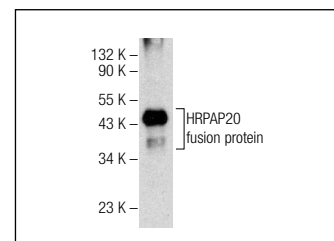
Molecular Weight (observed) of HRPAP20: 25 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, T-47D cell lysate: sc-2293 or K-562 whole cell lysate: sc-2203.

DATA



HRPAP20 (E-17): sc-68189. Western blot analysis of HRPAP20 expression in K-562 whole cell lysate.



HRPAP20 (E-17): sc-68189. Western blot analysis of human recombinant HRPAP20 fusion protein.

RESEARCH USE

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

PROTOCOLS

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