



DERP6 (K-18): sc-103458

BACKGROUND

DERP6 (dermal papilla-derived protein 6), also known as C17orf81, is a 316 amino acid protein that localizes to the cytoplasm and exists as multiple alternatively spliced isoforms. Expressed ubiquitously with highest expression in liver, heart, testis, brain and skeletal muscle, DERP6 is thought to be involved in p53-mediated transcriptional regulation. The gene encoding DERP6 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

1. Yuan, J., et al. 2006. Cloning and characterization of the human gene DERP6, which activates transcriptional activities of p53. *Mol. Biol. Rep.* 33: 151-158.
2. Nusbaum, R., et al. 2006-2007. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. *Breast Dis.* 27: 21-50.
3. Ropolo, A., et al. 2007. The pancreatitis-induced vacuole membrane protein 1 triggers autophagy in mammalian cells. *J. Biol. Chem.* 282: 37124-37133.
4. Tai, Y.C., et al. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. *J. Natl. Cancer Inst.* 99: 1811-1814.
5. Yan, J., et al. 2007. BLIMP1 regulates cell growth through repression of p53 transcription. *Proc. Natl. Acad. Sci. USA* 104: 1841-1846.

CHROMOSOMAL LOCATION

Genetic locus: C17orf81 (human) mapping to 17p13.1; Rai12 (mouse) mapping to 11 B3.

SOURCE

DERP6 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DERP6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103458 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

DERP6 (K-18) is recommended for detection of DERP6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with isoforms DERP6-2 or DERP6-3.

Suitable for use as control antibody for DERP6 siRNA (h): sc-93638, DERP6 siRNA (m): sc-105289, DERP6 shRNA Plasmid (h): sc-93638-SH, DERP6 shRNA Plasmid (m): sc-105289-SH, DERP6 shRNA (h) Lentiviral Particles: sc-93638-V and DERP6 shRNA (m) Lentiviral Particles: sc-105289-V.

Molecular Weight of DERP6: 35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.