

# DSCP1 (Q-23): sc-133523

## BACKGROUND

DSCP1 (Damage-stimulated cytoplasmic protein 1), also known as TP53113 (Tumor protein p53-inducible protein 13), is a 393 amino acid single-pass type I membrane protein that is ubiquitously expressed in normal adult tissues. Genotoxic stresses of adriamycin and/or ultraviolet beam irradiation lead to upregulation of DSCP1 in a p53-dependent manner. Overexpression of DSCP1 inhibits tumor cell growth, suggesting that it may act as a tumor suppressor. The gene encoding DSCP1 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.

## REFERENCES

- Smith, M.L. and Fornace, A.J. 1996. Mammalian DNA damage-inducible genes associated with growth arrest and apoptosis. *Mutat. Res.* 340: 109-124.
- Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 17. Genet. Test.* 2: 357-381.
- Komarova, E.A. and Gudkov, A.V. 1998. Could p53 be a target for therapeutic suppression? *Semin. Cancer Biol.* 8: 389-400.
- Hata, T., Ogawa, T., Yokoyama, T.A., Fukushige, S., Horii, A. and Furukawa, T. 2004. DSCP1, a novel TP53-inducible gene, is upregulated by strong genotoxic stresses and its overexpression inhibits tumor cell growth *in vitro*. *Int. J. Oncol.* 24: 513-520.
- Ben-Porath, I. and Weinberg, R.A. 2005. The signals and pathways activating cellular senescence. *Int. J. Biochem. Cell Biol.* 37: 961-976.

## CHROMOSOMAL LOCATION

Genetic locus: TP53113 (human) mapping to 17q11.2.

## SOURCE

DSCP1 (Q-23) is an affinity purified rabbit polyclonal antibody raised against synthetic DSCP1 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

DSCP1 (Q-23) is recommended for detection of DSCP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DSCP1 siRNA (h): sc-93555, DSCP1 shRNA Plasmid (h): sc-93555-SH and DSCP1 shRNA (h) Lentiviral Particles: sc-93555-V.

Molecular Weight of DSCP1: 42 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## RESEARCH USE

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