



DSCR 10 (P-14): sc-82124

BACKGROUND

An extra copy of chromosome 21, the smallest human autosome chromosome, results in Down syndrome. Down syndrome is a genetic disorder characterized by congenital heart abnormalities and mental retardation. The Down syndrome critical region (DSCR) maps specifically to chromosome 21q22.2 and includes several genes which are likely associated with the pathogenesis of Down syndrome. Symptoms include abnormal neuronal differentiation and elevated apoptosis in the developing brain. DSCR 10 (Down syndrome critical region protein 10) is an 87 amino acid protein preferentially expressed in placenta and testis. The genes encoding DSCR 10 and DSCR 9 are not present in mice, suggesting that these genes have emerged during evolution in the primate lineage.

REFERENCES

- Hattori, M., et al. 2000. The DNA sequence of human chromosome 21. The chromosome 21 mapping and sequencing consortium. *Nature* 405: 311-339.
- Shibuya, K., et al. 2000. Isolation of two novel genes, DSCR5 and DSCR6, from Down syndrome critical region on human chromosome 21q22.2. *Biochem. Biophys. Res. Commun.* 271: 693-698.
- Choi, D.K., et al. 2001. Molecular cloning and characterization of a gene expressed in mouse developing tongue, mDscr5 gene, a homolog of human DSCR5 (Down syndrome critical region gene 5). *Mamm. Genome* 12: 347-351.
- Takamatsu, K., et al. 2002. Identification of two novel primate-specific genes in DSCR. *DNA Res.* 9: 89-97.
- Pfister, S.C., et al. 2003. Mutational analyses of the signals involved in the subcellular location of DSCR1. *BMC Cell Biol.* 3: 24.
- Vesa, J., et al. 2005. Molecular and cellular characterization of the Down syndrome critical region protein 2. *Biochem. Biophys. Res. Commun.* 328: 235-242.
- Pellegrini-Calace, M. and Tramontano, A. 2006. Identification of a novel putative mitogen-activated kinase cascade on human chromosome 21 by computational approaches. *Bioinformatics* 22: 775-778.
- Park, J., et al. 2007. Dyrk1A overexpression in immortalized hippocampal cells produces the neuropathological features of Down syndrome. *Mol. Cell. Neurosci.* 36: 270-279.
- Berto, G., et al. 2007. The Down syndrome critical region protein TTC3 inhibits neuronal differentiation via RhoA and Citron kinase. *J. Cell Sci.* 120: 1859-1867.

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 or our catalog for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: DSCR10 (human) mapping to 21q22.13.

SOURCE

DSCR 10 (P-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DSCR 10 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-82124 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DSCR 10 (P-14) is recommended for detection of DSCR 10 of 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 other DSCR family members.

Suitable for use as control antibody for DSCR 10 siRNA (h): sc-77184, DSCR 10 shRNA Plasmid (h): sc-77184-SH and DSCR 10 shRNA (h) Lentiviral Particles: sc-77184-V.

Molecular Weight of DSCR 10: 9 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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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