

# DSCR 3 (P-20): sc-82128

## 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 3 (Down syndrome critical region protein 3), also known as DCRA or DSCRA, is a ubiquitously expressed 297 amino acid protein. In addition to its location in the DSCR region of chromosome 21, DSCR 3 is located within the CBR-ERG region that has been associated with partial trisomy 21 patients. This region contributes to the characteristic morphological features, mental retardation and hypotonia of Down syndrome patients.

## REFERENCES

1. Nakamura, A., Hattori, M. and Sakaki, Y. 1998. Isolation of a novel human gene from the Down syndrome critical region of chromosome 21q22.2. *J. Biochem.* 122: 872-877.
2. Dahmane, N., Ghezala, G.A., Gosset, P., Chamoun, Z., Dufresne-Zacharia, M.C., Lopes, C., Rabatel, N., Gassanova-Maugenre, S., Chettouh, Z., Abramowski, V., Fayet, E., Yaspo, M.L., Korn, B., Blouin, J.L., et al. 1998. Transcriptional map of the 2.5-Mb CBR-ERG region of chromosome 21 involved in Down syndrome. *Genomics* 48: 12-23.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605298. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Hu, Y., Zheng, M., Xu, Z., Wang, X. and Cui, H. 2004. Quantitative real-time PCR technique for rapid prenatal diagnosis of Down syndrome. *Prenat. Diagn.* 24: 704-707.
5. Zheng, M.M., Hu, Y.L., Xu, Z.F., Wang, Z.Q., Shi, T.Q., Ye, X.D. and Cui, H.M. 2005. Application of real-time fluorescence quantitative polymerase chain reaction techniques for prenatal diagnosis of Down syndrome. *Zhonghua Fu Chan Ke Za Zhi* 39: 678-681.

## CHROMOSOMAL LOCATION

Genetic locus: DSCR3 (human) mapping to 21q22.2; Dscr3 (mouse) mapping to 16 C4.

## SOURCE

DSCR 3 (P-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DSCR 3 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-82128 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DSCR 3 (P-20) is recommended for detection of DSCR 3 of mouse, rat and 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)], 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.

DSCR 3 (P-20) is also recommended for detection of DSCR 3 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for DSCR 3 siRNA (h): sc-77186, DSCR 3 siRNA (m): sc-77187, DSCR 3 shRNA Plasmid (h): sc-77186-SH, DSCR 3 shRNA Plasmid (m): sc-77187-SH, DSCR 3 shRNA (h) Lentiviral Particles: sc-77186-V and DSCR 3 shRNA (m) Lentiviral Particles: sc-77187-V.

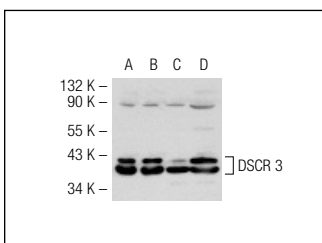
Molecular Weight of DSCR 3: 33 kDa.

Positive Controls: DSCR 3 (h): 293T Lysate: sc-111741, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## 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). 3) 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.

## DATA



DSCR 3 (P-20): sc-82128. Western blot analysis of DSCR 3 expression in non-transfected 293T: sc-117752 (A), human DSCR 3 transfected 293T: sc-111741 (B), HeLa (C) and Jurkat (D) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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