



DOCK 6 (D-13): sc-131505

BACKGROUND

Small GTPases of the Rho family, Rho, Rac, and Cdc42, are critical regulators of the actin cytoskeleton and many other cellular processes. Rho GTPases are activated by Dbl-homology (DH)-domain-containing guanine nucleotide exchange factors (GEFs). DOCK 6 (dedicator of cytokinesis 6), also known as ZIR1, is a 2,047 amino acid protein belonging to the DOCK family that likely functions as a GEF. Widely expressed, DOCK 6 is found at low levels in cerebellum, spleen, hippocampus and substantia nigra. DOCK 6 contains one DHR-1 (CZH-1) domain and a single DHR-2 (CZH-2) domain, and is encoded by a gene that maps to human chromosome 19. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

- Olsen, A., Teglund, S., Nelson, D., Gordon, L., Copeland, A., Georgescu, A., Carrano, A. and Hammarström, S. 1994. Gene organization of the pregnancy-specific glycoprotein region on human chromosome 19: assembly and analysis of a 700-kb cosmid contig spanning the region. *Genomics* 23: 659-668.
- Teglund, S., Olsen, A., Khan, W.N., Frängsmyr, L. and Hammarström, S. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. *Genomics* 23: 669-684.
- Wang, L., Lin, S.H., Wu, W.G., Kemp, B.L., Walsh, G.L., Hong, W.K. and Mao, L. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. *Clin. Cancer Res.* 6: 2988-2993.
- Trowsdale, J., Barten, R., Haude, A., Stewart, C.A., Beck, S. and Wilson, M.J. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
- Côte, J.F. and Vuori, K. 2002. Identification of an evolutionarily conserved superfamily of DOCK180-related proteins with guanine nucleotide exchange activity. *J. Cell. Sci.* 115: 4901-4913.
- Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. *Gene* 343: 239-244.
- Barrow, A.D. and Trowsdale, J. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. *Immunol. Rev.* 224: 98-123.

CHROMOSOMAL LOCATION

Genetic locus: DOCK6 (human) mapping to 19p13.2; Dock6 (mouse) mapping to 9 A3.

SOURCE

DOCK 6 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DOCK 6 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-131505 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DOCK 6 (D-13) is recommended for detection of DOCK 6 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 other DOCK family members.

Suitable for use as control antibody for DOCK 6 siRNA (h): sc-97636, DOCK 6 siRNA (m): sc-143136, DOCK 6 shRNA Plasmid (h): sc-97636-SH, DOCK 6 shRNA Plasmid (m): sc-143136-SH, DOCK 6 shRNA (h) Lentiviral Particles: sc-97636-V and DOCK 6 shRNA (m) Lentiviral Particles: sc-143136-V.

Molecular Weight of DOCK 6: 230 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.

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.

PROTOCOLS

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