

# DOCK 180 (C-19): sc-6167

## BACKGROUND

The v-Crk oncogene product shares homologous amino acid sequences, designated Src homology region 2 (SH2) and SH3, with many molecules involved in signal transduction. The v-Crk cellular homolog, c-Crk, is a member of a newly emerging class of genes including Nck and GRB2/ASH which encode proteins that consist primarily of SH2 and SH3 domains. Two distinct human c-Crk cDNAs, designated Crk I and Crk II, have been identified and shown to represent alternative splice products of c-Crk. The major translational product of c-Crk I has been identified as a variably expressed protein, while c-Crk II encodes a widely expressed protein and a more variably expressed protein. The major c-Crk transforming activity appears associated with c-Crk I p28 expression. DOCK 180, a protein downstream of Crk, has been identified as a major Crk-associated protein. When DOCK 180 is recruited to the plasma membrane from a cytoplasmic reservoir, presumably by Crk, changes in cellular morphology and spindle formation occur, suggesting DOCK 180 to be a Crk effector molecule.

## CHROMOSOMAL LOCATION

Genetic locus: DOCK1 (human) mapping to 10q26.2; Dock1 (mouse) mapping to 7 F3.

## SOURCE

DOCK 180 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DOCK 180 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6167 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DOCK 180 (C-19) is recommended for detection of DOCK 180 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).

Suitable for use as control antibody for DOCK 180 siRNA (h): sc-35207, DOCK 180 siRNA (m): sc-35208, DOCK 180 shRNA Plasmid (h): sc-35207-SH, DOCK 180 shRNA Plasmid (m): sc-35208-SH, DOCK 180 shRNA (h) Lentiviral Particles: sc-35207-V and DOCK 180 shRNA (m) Lentiviral Particles: sc-35208-V.

Molecular Weight of DOCK 180: 180 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, PC-12 cell lysate: sc-2250 or HeLa whole cell lysate: sc-2200.

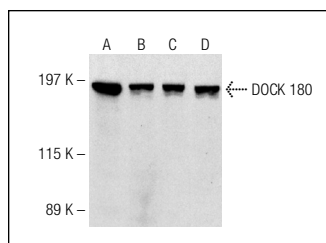
## STORAGE

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

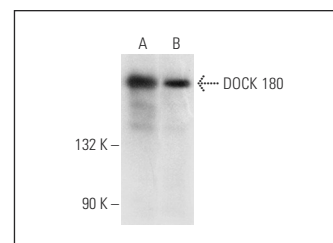
## RESEARCH USE

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

## DATA



DOCK 180 (C-19): sc-6167. Western blot analysis of DOCK 180 expression in 143B (A), A-431 (B), 3T3-L1 (C) and PC-12 (D) whole cell lysates.



DOCK 180 (C-19): sc-6167. Western blot analysis of DOCK 180 expression in H4 (A) and HeLa (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Brugnera, E. 2002. Unconventional Rac-GEF activity is mediated through the DOCK 180-Elmo complex. *Nat. Cell Biol.* 4: 574-582.
- Seo, J.H., et al. 2009. Structural and functional basis of a role for CRKL in a fibroblast growth factor 8-induced feed-forward loop. *Mol. Cell. Biol.* 29: 3076-3087.
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- Sanematsu, F., et al. 2010. DOCK180 is a Rac activator that regulates cardiovascular development by acting downstream of CXCR4. *Circ. Res.* 107: 1102-1105.
- Kim, J.Y., et al. 2011. The RhoG/ELMO1/Dock180 signaling module is required for spine morphogenesis in hippocampal neurons. *J. Biol. Chem.* 286: 37615-37624.
- Patel, M., et al. 2011. The Arf family GTPase Arl4A complexes with ELMO proteins to promote actin cytoskeleton remodeling and reveals a versatile Ras-binding domain in the ELMO proteins family. *J. Biol. Chem.* 286: 38969-38979.
- Siu, M.K., et al. 2011. The  $\beta$ 1-integrin-p-FAK-p130Cas-DOCK180-RhoA-vinculin is a novel regulatory protein complex at the apical ectoplasmic specialization in adult rat testes. *Spermatogenesis* 1: 73-86.
- Laurin, M., et al. 2013. The Rac-specific exchange factors Dock1 and Dock5 are dispensable for the establishment of the glomerular filtration barrier *in vivo*. *Small GTPases* 4: 221-230.



Try **DOCK 180 (E-2): sc-514080** or **DOCK 180 (H-4): sc-13163**, our highly recommended monoclonal alternatives to DOCK 180 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **DOCK 180 (E-2): sc-514080**.