

# DOCK 4 (C-15): sc-70165

## BACKGROUND

DOCK 4 (dedicator of cytokinesis protein 4) is a cytoplasmic peripheral membrane protein that belongs to the DOCK family of cytokinesis-regulating proteins. Expressed ubiquitously with highest expression in prostate, ovary and skeletal muscle, DOCK 4 functions as a guanine nucleotide exchange factor (GEF) that activates the small GTPase Rap 1 and, via this activation, plays a role in the regulation of adherens junctions between cells. Similar to other DOCK family members, DOCK 4 contains an N-terminal SH3 domain, a C-terminal proline-rich region and two internal DOCK homology regions designated DHR1 and DHR2. Defects in the gene encoding DOCK 4 result in the inactivation of Rap 1 and are thus implicated in the pathogenesis of various cancers such as ovarian, prostate, glioma and colorectal carcinomas. Four isoforms of DOCK 4 are expressed due to alternative splicing events.

## REFERENCES

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4. Hiramoto, K., Negishi, M. and Katoh, H. 2006. DOCK 4 is regulated by RhoG and promotes Rac-dependent cell migration. *Exp. Cell Res.* 312: 4205-4216.
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## CHROMOSOMAL LOCATION

Genetic locus: DOCK4 (human) mapping to 7q31.1; Dock4 (mouse) mapping to 12 B1.

## SOURCE

DOCK 4 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DOCK 4 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-70165 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

DOCK 4 (C-15) is recommended for detection of DOCK 4 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 4 siRNA (h): sc-77170, DOCK 4 siRNA (m): sc-77171, DOCK 4 shRNA Plasmid (h): sc-77170-SH, DOCK 4 shRNA Plasmid (m): sc-77171-SH, DOCK 4 shRNA (h) Lentiviral Particles: sc-77170-V and DOCK 4 shRNA (m) Lentiviral Particles: sc-77171-V.

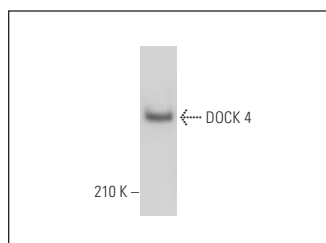
Molecular Weight of DOCK 4: 225 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HuT 78 whole cell lysate: sc-2208 or rat prostate extract: sc-364809.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



DOCK 4 (C-15): sc-70165. Western blot analysis of DOCK 4 expression in rat prostate tissue extract.

## STORAGE

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

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Try **DOCK 4 (R6Y): sc-100718**, our highly recommended monoclonal alternative to DOCK 4 (C-15).