# SANTA CRUZ BIOTECHNOLOGY, INC.

# Dok-4 (C-16): sc-130133



# BACKGROUND

The downstream of kinase family (Dok-1–7) are members of a class of docking proteins that interact with receptor tyrosine kinases and, via this interaction, mediate biological responses within the body. Dok-4 (downstream of kinase-4) is a 326 amino acid protein that contains one PH domain and one IRS-type PTB domain and belongs to the Dok family of interacting proteins. Expressed in a variety of tissues with highest expression in liver, heart, kidney and skele-tal muscle, Dok-4 plays an important role in Ret-mediated neurite outgrowth and may link Ret with downstream effectors during neuronal differentiation. Additionally, Dok-4 is thought to play a positive role in the activation of MAPK pathways and may participate in T-cell induced immune system regulation. Overexpression of Dok-4 is associated with clear cell renal cell carcinoma, suggesting a role for Dok-4 in tumorigenesis.

#### REFERENCES

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- Cai, D., et al. 2003. Two new substrates in Insulin signaling, IRS-5/Dok-4 and IRS-6/Dok-5. J. Biol. Chem. 278: 25323-25330.
- Bedirian, A., et al. 2004. Pleckstrin homology and phosphotyrosine-binding domain-dependent membrane association and tyrosine phosphorylation of Dok-4, an inhibitory adapter molecule expressed in epithelial cells. J. Biol. Chem. 279: 19335-19349.
- Uchida, M., et al. 2006. Dok-4 regulates GDNF-dependent neurite outgrowth through downstream activation of Rap1 and mitogen-activated protein kinase. J. Cell Sci. 119: 3067-3077.
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## CHROMOSOMAL LOCATION

Genetic locus: DOK4 (human) mapping to 16q21.

#### SOURCE

Dok-4 (C-16) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Dok-4 of human origin.

#### PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Dok-4 (C-16) is recommended for detection of Dok-4 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), immunohistochemistry (including paraffin-embedded sections) (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 Dok-4 siRNA (h): sc-105313, Dok-4 shRNA Plasmid (h): sc-105313-SH and Dok-4 shRNA (h) Lentiviral Particles: sc-105313-V.

Molecular Weight of Dok-4: 37 kDa.

Positive Controls: human cancer tissue or human Dok-4 transfected 293T whole cell lysate.

#### **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) Immunofluo-rescence: 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.







Dok-4 (C-16): sc-130133. Western blot analysis of Dok-4 expression in non-transfected (**A**) and human Dok-4 transfected (**B**) 293T whole cell lysates. Dok-4 (C-16): sc-130133. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

#### **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.