

DOC2A (L-14): sc-160302

BACKGROUND

Members of the DOC2 (double C2-like domain) protein family are thought to function as vesicular adapter proteins and are characterized by their double C2 domains. DOC2A (double C2-like domain-containing protein alpha), also known as DOC2, is a 400 amino acid protein that shares 70% amino acid sequence homology with human DOC2B. DOC2A interacts with Munc13-1 to modify calcium dependent neurotransmitter release and likely participates in dynein-dependent intracellular vesicle transport. A peripheral membrane protein, DOC2A is known to localize to lysosome and synaptosome, as well as cytoplasmic and secretory vesicles. Expressed at highest levels in brain, DOC2A is also found in testis and contains two C2 domains, the first of which is used to bind calcium and phospholipids. The gene encoding DOC2A maps to human chromosome 16p11.2 and murine chromosome 7 F3.

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CHROMOSOMAL LOCATION

Genetic locus: DOC2A (human) mapping to 16p11.2; Doc2a (mouse) mapping to 7 F3.

SOURCE

DOC2A (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DOC2A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160302 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DOC2A (L-14) is recommended for detection of DOC2A 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 DOC2B.

DOC2A (L-14) is also recommended for detection of DOC2A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DOC2A siRNA (h): sc-93040, DOC2A siRNA (m): sc-143131, DOC2A shRNA Plasmid (h): sc-93040-SH, DOC2A shRNA Plasmid (m): sc-143131-SH, DOC2A shRNA (h) Lentiviral Particles: sc-93040-V and DOC2A shRNA (m) Lentiviral Particles: sc-143131-V.

Molecular Weight of DOC2A: 44 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.