

DAN (E-20): sc-54174

BACKGROUND

The DAN (differential screening-selected gene aberrative in neuroblastoma) protein family contains antagonists of bone morphogenetic protein (BMP) signaling that are expressed in the neural crest. All family members are secreted proteins that act as BMP antagonists in embryonic explants and are expressed in the proximal airway epithelium of the lung during embryonic development. This family includes the head-inducing factor Cerberus, the dorsaling factor gremlin and the tumor suppressor DAN. DAN, also known as zinc finger protein DAN, NO3, DAND1 or neuroblastoma suppressor of tumorigenicity 1 (NBL1), is a secreted protein containing one C-terminal cysteine knot-like (CTCK) domain. It is produced in small neurons of the dorsal root ganglion and its expression is activated by MATH-1. In addition to antagonizing BMP signaling, DAN also antagonizes the action of TGF β . DAN is a possible tumor suppressor for human neuroblastoma; defects may result in or contribute to its progression. DAN may also be a neuromodulator in inflammatory pain.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NBL1 (human) mapping to 1p36.13; Nbl1 (mouse) mapping to 4 D3.

SOURCE

DAN (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DAN 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-54174 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DAN (E-20) is recommended for detection of DAN 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).

DAN (E-20) is also recommended for detection of DAN in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for DAN siRNA (h): sc-72320, DAN siRNA (m): sc-72321, DAN shRNA Plasmid (h): sc-72320-SH, DAN shRNA Plasmid (m): sc-72321-SH, DAN shRNA (h) Lentiviral Particles: sc-72320-V and DAN shRNA (m) Lentiviral Particles: sc-72321-V.

Molecular Weight of DAN: 19 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.