

DAP12 (C-20): sc-7853

BACKGROUND

Natural killer (NK) cells are regulated by stimulatory and inhibitory signals from a variety of receptors. Three main receptor families are responsible for NK cells' recognition of MHC I molecules, including Ly-49, CD94/NKG2 and KIR (killer-cell inhibitory receptor). DAP12 is a phosphoprotein that is involved in the activation of natural killer (NK) cells. This protein interacts with membrane glycoproteins of the KIR family, resulting in cellular activation. DAP12 also binds to CD94/NKG2C, an activating NK cell receptor belonging to the C-type lectin superfamily. Additional proteins that bind to DAP12 include Ly-49D and Ly-49H, which associate with DAP12 in the plasma membrane. Phosphorylated DAP12 binds to ZAP-70 and Syk, suggesting that the activation pathway may be similar to that of the T and B cell antigen receptors.

REFERENCES

1. Lanier, L.L. 1998. NK cell receptors. *Annu. Rev. Immunol.* 16: 359-393.
2. Lanier, L.L., et al. 1998. Association of DAP12 with activating CD94/ NKG2C NK cell receptors. *Immunity* 8: 693-701.

CHROMOSOMAL LOCATION

Genetic locus: TYROBP (human) mapping to 19q13.12; Tyrobp (mouse) mapping to 7 B1.

SOURCE

DAP12 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DAP12 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-7853 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DAP12 (C-20) is recommended for detection of DAP12 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), 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).

DAP12 (C-20) is also recommended for detection of DAP12 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DAP12 siRNA (h): sc-35172, DAP12 siRNA (m): sc-42854, DAP12 shRNA Plasmid (h): sc-35172-SH, DAP12 shRNA Plasmid (m): sc-42854-SH, DAP12 shRNA (h) Lentiviral Particles: sc-35172-V and DAP12 shRNA (m) Lentiviral Particles: sc-42854-V.

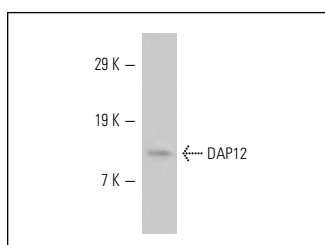
Molecular Weight of DAP12: 12 kDa.

Positive Controls: U-937 cell lysate: sc-2239 or J774.A1 cell lysate: sc-3802.

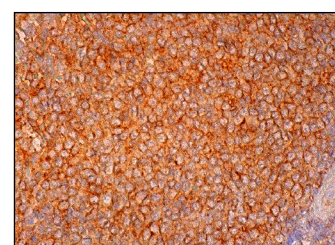
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



DAP12 (C-20): sc-7853. Western blot analysis of DAP12 expression in J774.A1 whole cell lysate.



DAP12 (C-20): sc-7853. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic staining of cells in white pulp.

SELECT PRODUCT CITATIONS

1. Kiialainen, A., et al. 2005. DAP12 and TREM-2, molecules involved in innate immunity and neurodegeneration, are co-expressed in the CNS. *Neurobiol. Dis.* 18: 314-322.

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.


 MONOS
Satisfaction
Guaranteed

Try **DAP12 (G-5): sc-133174** or **DAP12 (A-4): sc-166084**, our highly recommended monoclonal alternatives to DAP12 (C-20).