

DAP10 (H-2): sc-133173

BACKGROUND

DAP10, a transmembrane type 1 protein, is predominantly expressed in hematopoietic cells. On SDS-PAGE, DAP10 migrates slightly slower than expected due to glycosylation. DAP10 forms an activating receptor complex with its physiological partner, NKG2-D. NKG2-D is an activating receptor that initiates Natural Killer and T-cell mediated cytotoxicity against tumors expressing its ligands MICA and MICB. The DAP10-NKG2-D complex, as well as MICA and MICB, are stress-inducible molecules expressed in epithelial tumors. Both DAP10 and NKG2-D contain inhibition motifs in their cytoplasmic domains that recruit tyrosine-phosphatases, resulting in the inactivation of Natural Killer cells. The cytoplasmic region of DAP10 also contains a binding site for the SH2 domain of the p85 subunit of PI 3-kinase which suggests a role for DAP10 as a signal transducer leading to PI 3-kinase activation.

CHROMOSOMAL LOCATION

Genetic locus: HCST (human) mapping to 19q13.12.

SOURCE

DAP10 (H-2) is a mouse monoclonal antibody raised against amino acids 1-93 representing full length DAP10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DAP10 (H-2) is available conjugated to agarose (sc-133173 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133173 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133173 PE), fluorescein (sc-133173 FITC), Alexa Fluor® 488 (sc-133173 AF488), Alexa Fluor® 546 (sc-133173 AF546), Alexa Fluor® 594 (sc-133173 AF594) or Alexa Fluor® 647 (sc-133173 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133173 AF680) or Alexa Fluor® 790 (sc-133173 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

DAP10 (H-2) is recommended for detection of DAP10 of human origin by Western Blotting (starting dilution 1:100, 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 DAP10 siRNA (h): sc-35171, DAP10 shRNA Plasmid (h): sc-35171-SH and DAP10 shRNA (h) Lentiviral Particles: sc-35171-V.

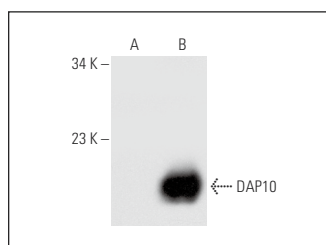
Molecular Weight of DAP10: 10 kDa.

Positive Controls: DAP10 (h): 293T Lysate: sc-116977 or CTLL-2 cell lysate: sc-2242.

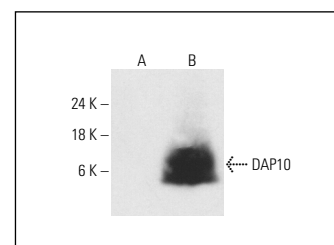
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DAP10 (H-2): sc-133173. Western blot analysis of DAP10 expression in non-transfected: sc-117752 (A) and human DAP10 transfected: sc-116977 (B) 293T whole cell lysates.



DAP10 (H-2) HRP: sc-133173 HRP. Direct western blot analysis of DAP10 expression in non-transfected: sc-117752 (A) and human DAP10 transfected: sc-116977 (B) 293T whole cell lysates.

SELECT PRODUCT CITATION

- Park, Y.P., et al. 2011. Complex regulation of human NKG2D-DAP10 cell surface expression: opposing roles of the γ cytokines and TGF-β1. *Blood* 118: 3019-3027.
- Niizuma, K., et al. 2015. Identification and characterization of CD300H, a new member of the human CD300 immunoreceptor family. *J. Biol. Chem.* 290: 22298-22308.
- Giuliani, E., et al. 2019. Hexamethylene bisacetamide impairs NK cell-mediated clearance of acute T lymphoblastic leukemia cells and HIV-1-infected T cells that exit viral latency. *Sci. Rep.* 9: 4373.
- Sun, Y., et al. 2021. Beclin-1 improves mitochondria-associated membranes in the heart during endotoxemia. *FASEB Bioadv.* 3: 123-135.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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