

DAP12 (h): 293T Lysate: sc-112269

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 class I molecules, including Ly-49, CD94/NKG2 and KIR (killer-cell inhibitory receptor). DAP12 is a phosphoprotein that is involved in the activation of 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., Corliss, B., Wu, J. and Phillips, J.H. 1998. Association of DAP12 with activating CD94/NKG2C NK cell receptors. *Immunity* 8: 693-701.
3. Smith, K.M., Wu, J., Bakker, A.B., Phillips, J.H. and Lanier, L.L. 1998. Ly-49D and Ly-49H associate with mouse DAP12 and from activating receptors. *J. Immunol.* 161: 7-10.
4. Lanier, L.L., Corliss, B.C., Wu, J., Leong, C. and Phillips, J.H. 1998. Immuno-receptor DAP12 bearing a tyrosine-based activation motif is involved in activating NK cells. *Nature* 391: 703-707.
5. Vitale, M., Bottino, C., Sivori, S., Sanseverino, L., Castriconi, R., Marcenaro, E., Augugliaro, R., Moretta, L. and Moretta, A. 1998. NKp44, a novel triggering surface molecule specifically expressed by activated natural killer cells, is involved in non-major histocompatibility complex-restricted tumor cell lysis. *J. Exp. Med.* 187: 2065-2072.

CHROMOSOMAL LOCATION

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

PRODUCT

DAP12 (h): 293T Lysate represents a lysate of human DAP12 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

DAP12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive DAP12 antibodies. Recommended use: 10-20 µl per lane.

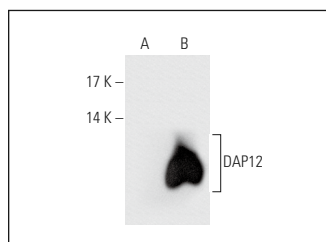
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DAP12 (A-4): sc-166084 is recommended as a positive control antibody for Western Blot analysis of enhanced human DAP12 expression in DAP12 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

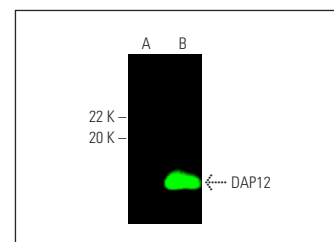
RECOMMENDED SUPPORT REAGENTS

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.

DATA



DAP12 (A-4): sc-166084. Western blot analysis of DAP12 expression in non-transfected: sc-117752 (A) and human DAP12 transfected: sc-112269 (B) 293T whole cell lysates.



DAP12 (G-5): sc-133174. Near-infrared western blot analysis of DAP12 expression in non-transfected: sc-110760 (A) and human DAP12 transfected: sc-112269 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

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.