

# B7-H3 (H-300): sc-66814

## BACKGROUND

T cell activation and immune function are regulated by the innate immune system through positive and negative costimulatory molecules. One such molecule, B7-H3 (B7-homolog 3, also designated B7RP-2) belongs to the B7 immunoglobulin superfamily. Soluble B7-H3 binds a putative receptor on activated T cells that is distinct from CD28, CTLA-4, ICOS and PD-1. Widely expressed on nonlymphoid tissues, B7-H3 costimulates proliferation of both CD4<sup>+</sup> and CD8<sup>+</sup> T cells. The ability of B7-H3 to stimulate Th1 and cytotoxic T cell responses suggest that it may have antitumor activity. B7-H3 interactions may play a role in regulating cell-mediated immune responses against cancer, implicating B7-H3 as a potential therapeutic tool.

## REFERENCES

1. Chapoval, A.I., et al. 2001. B7-H3: a costimulatory molecule for T cell activation and IFN- $\gamma$  production. *Nat. Immunol.* 2: 269-274.
2. Ferlazzo, G., et al. 2002. T lymphocytes express B7 family molecules following interaction with dendritic cells and acquire bystander costimulatory properties. *Eur. J. Immunol.* 32: 3092-3101.

## CHROMOSOMAL LOCATION

Genetic locus: CD276 (human) mapping to 15q24.1; Cd276 (mouse) mapping to 9 B.

## SOURCE

B7-H3 (H-300) is a rabbit polyclonal antibody raised against amino acids 166-465 mapping within an N-terminal extracellular domain of B7-H3 of human origin.

## PRODUCT

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

## APPLICATIONS

B7-H3 (H-300) is recommended for detection of B7-H3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

B7-H3 (H-300) is also recommended for detection of B7-H3 in additional species, including canine and bovine.

Suitable for use as control antibody for B7-H3 siRNA (h): sc-45444, B7-H3 siRNA (m): sc-45445, B7-H3 shRNA Plasmid (h): sc-45444-SH, B7-H3 shRNA Plasmid (m): sc-45445-SH, B7-H3 shRNA (h) Lentiviral Particles: sc-45444-V and B7-H3 shRNA (m) Lentiviral Particles: sc-45445-V.

Molecular Weight of B7-H3 isoforms: 57/34/53/57 kDa.

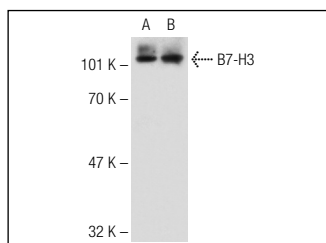
Molecular Weight of glycosylated B7-H3: 90-110 kDa.

Positive Controls: JAR cell lysate: sc-2276 or JEG-3 whole cell lysate: sc-364255.

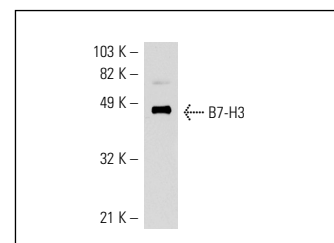
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



B7-H3 (H-300): sc-66814. Western blot analysis of B7-H3 expression in JAR (A) and JEG-3 (B) whole cell lysates.



B7-H3 (H-300): sc-66814. Western blot analysis of mouse recombinant B7-H3.

## SELECT PRODUCT CITATIONS

1. La Rocca, G., et al. 2013. Human Wharton's jelly mesenchymal stem cells maintain the expression of key immunomodulatory molecules when subjected to osteogenic, adipogenic and chondrogenic differentiation *in vitro*: new perspectives for cellular therapy. *Curr. Stem Cell Res. Ther.* 8: 100-113.
2. Anzalone, R., et al. 2013. Isolation and characterization of CD276<sup>+</sup>/HLA-E<sup>+</sup> human subendocardial mesenchymal stem cells from chronic heart failure patients: analysis of differentiative potential and immunomodulatory markers expression. *Stem Cells Dev.* 22: 1-17.

## 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.


 MONOS  
Satisfaction  
Guaranteed

Try **B7-H3 (F-11): sc-376769** or **B7-H3 (C-1): sc-398323**, our highly recommended monoclonal alternatives to B7-H3 (H-300).