

## B7-H3 (110): sc-66188

### 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

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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.
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4. Suh, W.K., et al. 2003. The B7 family member B7-H3 preferentially down-regulates T helper type 1-mediated immune responses. *Nat. Immunol.* 4: 899-906.
5. Sun, X., et al. 2003. Mouse B7-H3 induces antitumor immunity. *Gene Ther.* 10: 1728-1734.
6. Prasad, D.V., et al. 2004. Murine B7-H3 is a negative regulator of T cells. *J. Immunol.* 173: 2500-2506.
7. Suh, W.K., et al. 2004. The immune regulatory protein B7-H3 promotes osteoblast differentiation and bone mineralization. *Proc. Natl. Acad. Sci. USA* 101: 12969-12973.
8. Wang, L., et al. 2005. B7-H3 promotes acute and chronic allograft rejection. *Eur. J. Immunol.* 35: 428-438.
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### CHROMOSOMAL LOCATION

Genetic locus: Cd276 (mouse) mapping to 9 B.

### SOURCE

B7-H3 (110) is a rat monoclonal antibody raised against an extracellular portion of B7-H3 of mouse origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-66188 PE), conjugate for flow cytometry, 100 tests.

### APPLICATIONS

B7-H3 (110) is recommended for detection of B7-H3 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

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

Molecular Weight (predicted) of B7-H3 isoforms 1/2/3/4: 57/34/53/57 kDa.

Molecular Weight (observed) of B7-H3: 100 kDa

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rat IgG-HRP: sc-2006 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-rat IgG-HRP: sc-2032 (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.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.