



## B7-H4 (9): sc-66189

### BACKGROUND

T cell activation and immune function are regulated by the innate immune system through positive and negative costimulatory proteins. One such protein, B7-H4 (B7-homolog 4, also designated VTCN1), belongs to the B7 immunoglobulin superfamily of ligand-lymphocyte interacting proteins. Expressed primarily on the membrane of lymphoid cells, B7-H4 is an immunoinhibitory protein that interacts with receptors on the surface of T lymphocytes, thus mediating cellular and humoral immune responses. Overexpression of the B7-H4 protein is associated with certain malignancies, including ovarian and breast cancer, as its interaction with T cells suppresses tumor-associated immunity. Current research suggests that, similar to Mucin 16 (CA125), B7-H4 may be a useful biomarker for the early detection of ovarian cancer.

### REFERENCES

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### STORAGE

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

### CHROMOSOMAL LOCATION

Genetic locus: Vtcn1 (mouse) mapping to 3 F2.2.

### SOURCE

B7-H4 (9) is a rat monoclonal antibody raised against B7-H4 of mouse origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

B7-H4 (9) is available conjugated to agarose (sc-66189 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-66189 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-66189 PE), fluorescein (sc-66189 FITC), Alexa Fluor® 488 (sc-66189 AF488), Alexa Fluor® 546 (sc-66189 AF546), Alexa Fluor® 594 (sc-66189 AF594) or Alexa Fluor® 647 (sc-66189 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-66189 AF680) or Alexa Fluor® 790 (sc-66189 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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### APPLICATIONS

B7-H4 (9) is recommended for detection of B7-H4 of mouse origin by flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells).

Suitable for use as control antibody for B7-H4 siRNA (m): sc-72385, B7-H4 shRNA Plasmid (m): sc-72385-SH and B7-H4 shRNA (m) Lentiviral Particles: sc-72385-V.

Molecular Weight of B7-H4: 35 kDa.

### 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) for detailed protocols and support products.