Mouse B7-H4 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF2154

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse B7-H4 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant mouse (rm) B7-1, rmB7-2, rmB7-H1, rmB7-H2, rmB7-H3, and rmPD-L2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse B7-H4 Phe29-Pro258 Accession # Q7TSP5
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

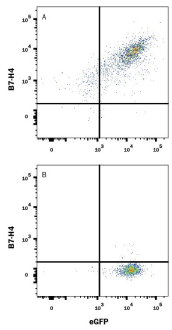
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse B7-H4 (Catalog # 2154-B7)
Flow Cytometry	0.25 µg/10^6 cells	See Below

DATA

Flow Cytometry



Detection of B7-H4 in HEK293 Human Cell Line Transfected with Mouse B7-H4 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with either (A) mouse B7-H4 or (B) irrelevant protein and eGFP was stained with Goat Anti-Human/Mouse B7-H4 Biotinylated Polyclonal Antibody (Catalog # BAF2154) followed by APC-conjugated Streptavidin (Catalog # F0050). Quadrant markers were set based on Goat IgG control antibody staining (Catalog # Catalog # BAF108). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

B7-H4, also known as B7x and B7S1, is a member of the B7 family of immune co-stimulatory proteins (1). Mature B7-H4 is a 50 kDa - 80 kDa glycosylated molecule with a 28 kDa protein core (2). Partial sensitivity to cleavage by PI-PLC suggests a possible GPI linkage of mouse B7-H4 to the cell membrane (3). The 230 amino acid (aa) extracellular region of B7-H4 contains one Ig-like V-set domain and one Ig-like C2-set domain which is followed by a hydrophobic C-terminal region (3 - 5). Within the ECD, mouse B7-H4 shares 90% and 99% aa sequence identity with human and rat B7-H4, respectively. It shares 21% - 29% aa sequence identity with B7-1, B7-2, B7-H1, B7-H2, B7-H3, and PD-L2. B7-H4 expression is induced on mitogen- or LPS-activated B cells, T cells, dendritic cells, monocytes, and macrophages (3, 4) and blocked by GM-CSF or IL-4 (6). It is also expressed on various normal epithelia and upregulated in several carcinomas and renal tubule epithelial cell lesions (2, 6 - 10). B7-H4 is expressed on the surface of macrophages but intracellularly in ovarian and breast cancer cells (2, 6 - 7). It is found in the serum and ascites fluid of cancer patients (11). B7-H4 binds an unidentified ligand on activated T cells which is distinct from BTLA, CD28, CTLA4, ICOS, and PD-1 (3 - 5, 12). Exposure to B7-H4 inhibits antigen-dependent induction of T cell proliferation and activation (3 - 5). Alternatively, B7-H4 expressing renal tubular epithelial cells promote T cell activation (8). Regulatory T cells, IL-6, and IL-10 induce B7-H4 expression on antigen presenting cells which fosters tumor growth by dampening the anti-tumor immune response (6, 13). B7-H4 also promotes the malignant transformation of epithelial cells by protecting them from apoptosis (2). Despite evidence for the involvement of B7-H4 in immune regulation, mice deficient in its expression do not show significant immune deficiencies, suggesting compensation by other molecules *in vivo* (14).

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