Mouse B7-H3 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2741E
Catalog Number: MAB10271

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse B7-H3 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2741E
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived mouse B7-H3 Val29-Phe244 Accession # Q8VE98.1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

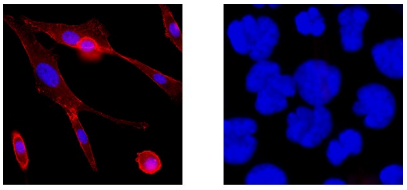
APPLICATIONS

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
Flow Cytometry	0.25 µg/10^6 cells	C2C12 mouse muscle myoblast cell line
Immunocytochemistry	8-25 µg/mL	Immersion fixed NIH-3T3 mouse embryonic fibroblast cell line

DATA

Immunocytochemistry

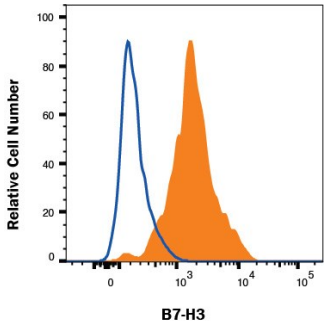


Positive (NIH 3T3 cells)

Negative (MOLT-4 cells)

B7-H3 in NIH-3T3 Mouse Cell Line. B7-H3 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line (positive staining) and MOLT-4 human acute lymphoblastic leukemia cell line (negative staining) using Rabbit Anti-Mouse B7-H3 Monoclonal Antibody (Catalog # MAB10271) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to plasma membrane. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Flow Cytometry



Detection of B7-H3 in C2C12 Mouse Cell Line by Flow Cytometry. C2C12 mouse muscle myoblast cell line was stained with Rabbit Anti-Mouse B7-H3 Monoclonal Antibody (Catalog # MAB10271, filled histogram) or isotype control antibody (Catalog # MAB1050, open histogram), followed by Phycoerythrin-conjugated Anti-Rabbit IgG F(ab')2Secondary Antibody (Catalog # F0110).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
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

T cells require a signal induced by the engagement of the T cell receptor and a “costimulatory” signal(s) through distinct T cell surface molecules for optimal T cell expansion and activation. Members of the B7 superfamily of counter-receptors were identified by their ability to interact with costimulatory molecules found on the surface of T cells. Members of the B7 superfamily include B7-1 (CD80), B7-2 (CD86), B7-H1 (PD-L1), B7-H2 (B7RP-1), B7-H3, and PD-L2 (1). B7-H3 is expressed at very high levels in immature dendritic cells at moderate levels on mature dendritic cells, LPS stimulated immature dendritic cells and LPS stimulated monocytes, and at low levels on resting monocytes. B7-H3 binds to activated T cells via an as-of-yet identified receptor. B7-H3 co-stimulates proliferation of T cells and interferon-γ (IFN-γ) production and enhances the induction of cytotoxic T cells. B7-H3 shares 20 - 27% amino acid (aa) identity with other B7 family members (2). Murine B7-H3 is a 259 aa protein containing an extracellular domain, a transmembrane domain and a cytoplasmic domain. Mouse and human B7-H3 share 87% aa identity (3).

References:

1. Coyle, A.J. and J.-C. Gutierrez-Ramos (2001) Nature Immunol. **2**:203.
2. Chapoval, A.I. *et al.* (2001) Nature Immunol. **2**:269.
3. Sun, M. *et al.* (2002) J. Immunol. **168**:6294.

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