Mouse B7-2/CD86 Antibody

Monoclonal Rat IgG_{2A} Clone # 133412

Catalog Number: MAB11469

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse B7-2/CD86 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse B7-1, recombinant human (rh) B7-1 or rhB7-2 is observed.
Source	Monoclonal Rat IgG_{2A} Clone # 133412
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	LPS-activated mouse B cells
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.

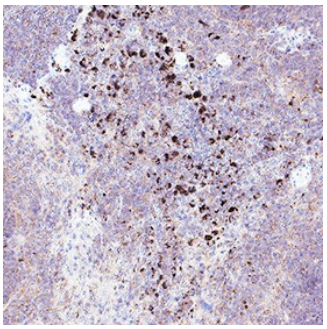
APPLICATIONS

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
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of mouse spleen

DATA

Immunohistochemistry



Detection of B7-2/CD86 in Mouse Spleen. B7-2/CD86 was detected in immersion fixed paraffin-embedded sections of mouse spleen using Rat Anti-Mouse B7-2/CD86 Monoclonal Antibody (Catalog # mab11469) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Rat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC005). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store 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

B7-1 and B7-2, together with their receptors CD28 and CTLA-4, constitute one of the dominant costimulatory pathways that regulate T- and B-cell responses. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. B7-1 is expressed on activated B cells, activated T cells, and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B7-2 is expressed at low levels on monocytes and can be up-regulated through interferon γ. B7-1 and B7-2 are both members of the immunoglobulin superfamily. Mouse B7-2 is a 309 amino acid (aa) protein containing a putative 23 aa signal peptide, a 221 aa extracellular domain, a 21 aa transmembrane domain, and a 44 aa cytoplasmic domain. Mouse B7-2 and B7-1 share 28% amino acid identity. Mouse and human B7-2 share 50% amino acid identity. However, it has been observed that both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4, suggesting that there are conserved amino acids which form the B7-1/B7-2/CD28/CTLA-4 critical binding sites.

References:

1. Azuma, M. *et al.* (1993) Nature **366**:76.
2. Freeman, G.J. *et al.* (1993) Science **262**:909.
3. Freeman, G. *et al.* (1991) J. Exp. Med. **174**:625.
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5. Chen, C. *et al.* (1994) J. Immunol. **152**:4929.
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