

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse 4-1BB in direct ELISAs and Western blots. In direct ELISAs, this antibody shows no cross-reactivity with recombinant mouse (rm) BAFF R, rmCD27, rmCD30, rmCD40, rmDR3, rmEDAR, rmFas, rmGITR, rmLTβR, rmNGF R, rmOPG, rmRANK, rmTAJ, rmTNF RI, rmTNF RII, rh4-1BB, rhDR6, or rhHVEM.
Source	Monoclonal Rat IgG _{2A} Clone # 158321
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse 4-1BB Val24-Leu187 Accession # P20334
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

Agonist Activity	Measured by its ability to co-stimulate IFN-γ secretion by mouse splenic T cells in the presence of anti-CD3 [Saoulli, K. <i>et al.</i> (1998) <i>J. Exp. Med.</i> 187 (11):1849; Cannons, J. <i>et al.</i> (2001) <i>J. Immunol.</i> 167 :1313]. The ED ₅₀ for this effect is typically 0.4 - 1.2 µg/mL.
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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. <ul style="list-style-type: none"> ● 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.

BACKGROUND

4-1BB is a type I transmembrane protein belonging to the TNF receptor superfamily. It has been designated TNFRSF9 and is also known as CD137. 4-1BB is expressed on T cells, NK cells, monocytes, neutrophils, dendritic cells, and eosinophils. The ligand for 4-1BB, 4-1BBL, is a TNF ligand superfamily member (TNFSF9) expressed on the surfaces of activated antigen presenting cells and T and B lymphoma cell lines. 4-1BB transduces a T cell costimulatory signal to promote survival, proliferation, cytokine production, and effector function. On dendritic cells, 4-1BB ligation enhances cytokine production and upregulates expression of B7-1 and B7-2 costimulatory molecules.