Mouse 4-1BB/TNFRSF9/CD137 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF937

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse 4-1BB/TNFRSF9/CD137 in ELISAs and Western blots. In sandwich immunoassays, less than 0.1% cross-reactivity with recombinant human 4-1BB, recombinant mouse (rm) EDAR, and rmCD40 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse 4-1BB/TNFRSF9/CD137 Val24-Leu187 Accession # P20334
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 4-1BB/TNFRSF9/CD137 Fc Chimera (Catalog # 937-4B)
Flow Cytometry	2.5 µg/10^6 cells	Mouse splenocytes treated with ConA
Mouse 4-1BB/TNFRSF9/CD137 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Mouse 4-1BB/TNFRSF9/CD137 Antibody (Catalog # MAB937)
ELISA Detection	0.1-0.4 µg/mL	Mouse 4-1BB/TNFRSF9/CD137 Biotinylated Antibody (Catalog # BAF937)
Standard		Recombinant Mouse 4-1BB/TNFRSF9/CD137 Fc Chimera (Catalog # 937-4B)

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.

BACKGROUND

4-1BB, also known as CD137 and ILA (induced by lymphocyte activation), is a TNF receptor superfamily member and has been designated TNFRSF9. Mouse 4-1BB cDNA encodes a 256 amino acid (aa) residues type I transmembrane protein with a putative 23 aa signal peptide, a 164 aa extracellular domain, a 21 aa transmembrane domain and a 48 aa cytoplasmic region (1-3). A soluble 4-1BB is released from surfaces of cells expressing the transmembrane protein (4). Mouse 4-1BB shares approximately 60% aa sequence identity with its human counterpart. 4-1BB is expressed on activated $CD4^+$ and $CD8^+$ T cells, thymocytes, and NK cells. It is also expressed on monocytes, neutrophils, DCs and eosinophils (5). The ligand for 4-1BB (4-1BBL), also named TNFSF9, belongs to the TNF ligand superfamily. 4-1BBL is predominantly expressed on activated antigen presenting cells (APCs) such as B cells, macrophages and dendritic cells (DCs). It is also expressed on most T and B lymphoma cell lines. In response to 4-1BBL binding, 4-1BB transduce a T cell costimulatory signal in both $CD4^+$ and $CD8^+$ T cells to promote survival and enhance proliferation, cytokine production and effector function. *In vivo,* the costimulatory activity of 4-1BB has been shown to be important in graft-v s-host disease and antiviral CTL responses. On dendritic cells, 4-1BB is a DC-activating molecules that enhances cytokine production and up-regulates expression of B7-1 and B7-2 costimulatory molecules, resulting in an improved ability to stimulate T cell responses (1-5).

References:

1. Goodwin, R.G. *et al.* (1993) Eur. J. Immunol. **23**:2631.
2. Alderson, M.R. *et al.* (1994) Eur. J. Immunol. **24**:2219.
3. Kwon, B.S. and S.M. Weissman (1989) Proc. Nat. Acad. Sci. USA **86**:1963.
4. Wilcox, R.A. *et al.* (2002) J. Immunol. **168**:4262.
5. Kwon, B., H.W. Lee and B.S. Kwon, 2002, TRENDS in Immunology **23**:378.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449