

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BCMA in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows no cross-reactivity with recombinant mouse (rm) BCMA or rmTACI.
Source	Monoclonal Rat IgG _{2A} Clone # 335004
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BCMA Met1-Ala54 Accession # Q02223
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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human BCMA/TNFRSF17 Fc Chimera (Catalog # 193-BC)
Blockade of Receptor-ligand Interaction	In a functional ELISA, 0.2 - 0.8 µg/mL of this antibody will block 50% of the binding of 500 ng/mL of recombinant human APRIL to immobilized recombinant human BCMA coated at 1 µg/mL (100 µL/well). At 5 µg/mL, this antibody will block >90% of the binding.	

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

BCMA, B cell maturation antigen, is a member of the TNF receptor superfamily. It has been designated TNFRSF17. BCMA is a type III membrane protein containing one extracellular cysteine rich domain. Within the TNFRSF, it shares the highest homology with TACI. BCMA and TACI have both been shown to bind to APRIL and BAFF, members of the TNF ligand superfamily. BCMA expression has been found in immune organs and mature B cell lines. Although some expression has been observed at the cell surface, BCMA appears to be localized to the Golgi compartment. The binding of BCMA to APRIL or BAFF has been shown to stimulate IgM production in peripheral blood B cells and increase the survival of cultured B cells. This data suggests that BCMA may play an important role in B cell development, function and regulation. Human BCMA is a 184 amino acid (aa) protein consisting of a 54 aa extracellular domain, a 23 aa transmembrane domain, and a 107 aa intracellular domain. Mouse and human BCMA share 62% amino acid identity.

References:

1. Madry, C. *et al.* (1998) *Int. Immunol.* **10**:1693.
2. Gras, M. *et al.* (1995) *Int. Immunol.* **7**:1093.
3. Kwon, B. *et al.* (1999) *Curr. Opin. Immunol.* **11**:340.
4. Marsters, S. *et al.* (2000) *Curr. Biol.* **10**:785.
5. Thompson, J. *et al.* (2000) *J. Exp. Med.* **192**:129.