

DESCRIPTION

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| Source | Human embryonic kidney cell, HEK293-derived human BCMA/TNFRSF17 protein | | | |
| | Human BCMA/TNFRSF17 (Met1-Ala54) Accession # Q02223-1 | IEGRMD | Human IgG ₁ (Pro100-Lys330) | Avi-tag |
| | N-terminus | | C-terminus | |
| N-terminal Sequence | Met1 | | | |
| Analysis | | | | |
| Structure / Form | Disulfide-linked homodimer, biotinylated protein via Avi-tag | | | |
| Predicted Molecular Mass | 34 kDa | | | |

SPECIFICATIONS

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| SDS-PAGE | 36-48 kDa, under reducing conditions |
| Activity | Measured by its binding ability in a functional ELISA. When Recombinant Human APRIL/TNFSF13 (Catalog # 5860-AP) is immobilized at 0.1 µg/mL (100 µL/well), Recombinant Human BCMA/TNFRSF17 Fc Chimera Avi-tag (Catalog # AVI193) binds with an ED ₅₀ of 0.3-1.8 ng/mL. |
| Endotoxin Level | <0.10 EU per 1 µg of the protein by the LAL method. |
| Purity | >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. |

PREPARATION AND STORAGE

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| Reconstitution | Reconstitute at 500 µg/mL in PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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. • 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

DATA

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| <p>Binding Activity</p> <p>When Recombinant Human APRIL/TNFSF13 (Catalog # 5860-AP) is immobilized at 0.1 µg/mL, Recombinant Human BCMA/TNFRSF17 Fc Chimera Avi-tag (Catalog # AVI193) binds with an ED₅₀ of 0.3-1.8 ng/mL.</p> | <p>SDS-PAGE</p> <p>2 µg/lane of Recombinant Human BCMA/TNFRSF17 Fc Chimera Avi-tag (Catalog # AVI193) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 36-48 kDa and 70-100 kDa, respectively.</p> |
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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.