Recombinant Cynomolgus Monkey/Rhesus Macaque BCMA/TNFRSF17 Fc Chimera

Catalog Number: 10029-BC

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived BCMA/TNFRSF17 protein

N-terminal Sequence Analysis	Met17
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	33 kDa

SPECIFICATIONS

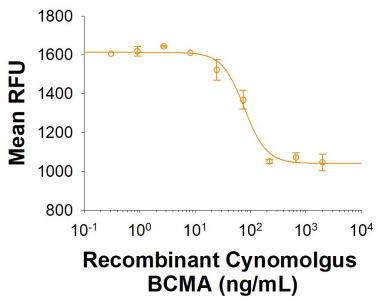
SDS-PAGE	37-43 kDa, reducing conditions
Activity	Measured by its ability to inhibit APRIL-mediated proliferation of anti-IgM stimulated mouse B cells. Moore, P.A. *et al.* (1999) Science **285**:260; Gross, J.A. *et al.* (2000) Nature **404**:995; Schneider, P. *et al.* (1999) J. Exp. Med. **189**:1747. The ED_{50} for this effect is 30-180 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

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	• 12 months from date of receipt, ≤ -20 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

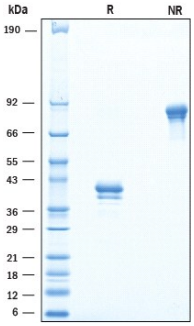
DATA

Bioactivity



Recombinant Cynomolgus/Rhesus Macaque BCMA Fc Chimera (Catalog # 10029-BC) inhibits Recombinant Human APRIL/TNFSF13 (Catalog # 5860-AP) mediated proliferation of anti-IgM stimulated mouse B cells. The ED_{50} for this effect is 30-180 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Cynomolgus Monkey BCMA/TNFRSF17 Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 37-43 kDa and 75- 85 kDa, respectively.

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BACKGROUND

BCMA, B cell maturation antigen, also known as Tumor Necrosis Factor Receptor Superfamily member 17 (gene name TNSFR17), is a member of the TNFR superfamily, due to the presence of its TNFR motif (1). BCMA is a type III membrane protein containing one extracellular cysteine rich domain, a transmembrane domain, and an intracellular 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 (2, 3). This binding to APRIL and BAFF has been shown to stimulate IgM production in peripheral B cells and increase the survival of cultured B cells (3, 4). This data suggests that BCMA may play an important role in B cell development, function and regulation (5). BCMA expression has been found in immune organs and mature B cell lines (5). Although some expression has been observed at the cell surface, BCMA appears to be localized to the Golgi compartment (6). Within the ECD, cynomolgus monkey BCMA shares 89% sequence identity with human BCMA, 62% with mouse BCMA, and 59% with rat BCMA. The expression of BCMA has also been linked to various cancers, autoimmune disorders, and infectious diseases (7). Proteolytic shedding of the BCMA extracellular domain generated soluble BCMA (sBCMA) via direct cleavage by γ-secretase, elevated sBCMA levels in serum may correlate with disease activity (8). More recently, BCMA has been indicated as a possible biomarker in various human immunological disease, and as a potential therapeutic target for multiple myeloma (MM) (9-11).

References:

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