

Product Information

Description:	Anti-CD3-Anti-BCMA IgG format bispecific antibody is a purified recombinant human bispecific antibody with T cell Engager. This bispecific antibody has been tested in a functional reporter assay using NFAT Luciferase Reporter Jurkat Cell Line (BPS Bioscience #60621) in the presence of BCMA CHO Recombinant Cell Line (BPS Bioscience #79500-H) that overexpress BCMA.
Background:	B-cell maturation antigen (BCMA), also known as CD269 or tumor necrosis factor receptor superfamily member 17 (TNFRSF17), is a cell surface receptor of the TNF receptor superfamily that recognizes B-cell activating factor (BAFF). It is found in mature B lymphocytes, and its cleaved form (sBCMA) is found at elevated levels in patients with multiple myeloma (MM). It has also been implicated in leukemia and lymphoma. BCMA is an attractive target for CAR-T based cancer therapy due to its pattern of expression, and studies have resulted in two clinical trials using CAR-T based therapy products (ALL-715 and JNJ-4528) being approved for the treatment of MM. Additionally, BCMA has been extensively used in the context of bis-specific antibodies that bring together cancer cells and T cells. Just recently a new BCMA based bispecific antibody, Elrexio), has been approved for the treatment of patients with refractory MM that had four prior lines of therapy. Further developments and studies into BCMA will open more cancer therapy avenues.
Species:	Human
Concentration:	0.32 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, and 2.2 mM KCl
MW:	CD3 Heavy Chain: 50 kDa; CD3 Light Chain: 23 kDa; BCMA Heavy Chain: 49 kDa; BCMA Light Chain: 23 kDa
Stability:	At least 12 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Applications:	This product is for research use only. It is not suitable for human diagnostic or therapeutic use. The anti-CD3-anti-BCMA IgG format bispecific antibody can be used for studying BCMA ⁺ cancer cell-mediated T cell activation, using either primary T cells or reporter cell lines such as NFAT Luciferase Reporter Jurkat Cell Line (BPS Bioscience #60621).

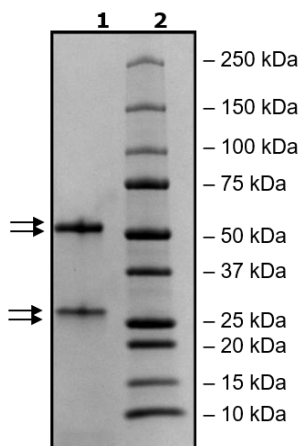
Experimental design and assay protocol for measuring anti CD3-anti BCMA functional activity using NFAT Luciferase Reporter Jurkat Cell Line as target:

Jurkat effector cells with endogenous TCR/CD3 and the transfected NFAT-dependent Luciferase reporter (BPS Bioscience #60621) were incubated with increasing concentrations of anti-CD3-anti-BCMA bispecific antibody in the presence of BCMA CHO cells (BPS Bioscience #79500-H) or CHO-K1 cells (ATCC #CCL61™).

1. Seed CHO-K1 and BCMA CHO cells at 30,000 cells/well and allow a few hours for the cells to attach in a 96-well clear bottom white plate.
2. Seed Jurkat cells at 30,000 cells/well.
3. Add the bispecific antibody at a recommended dilution range of 100 fM-100 nM. The bispecific antibody simultaneously binds to TCR/CD3 on the NFAT Luciferase Reporter Jurkat cells and the tumor antigen BCMA on BCMA CHO cells.
4. Measure luciferase activity after 16 hours using the ONE-Step™ Luciferase Assay System (BPS Bioscience #60690) per recommended protocol. The bispecific antibody interaction with BCMA on target cells and CD3 on Jurkat cells stimulates NFAT-luciferase activity in Jurkat (effector) cells.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



Activation of NFAT Luciferase Reporter Jurkat cells by Anti-CD3-Anti-BCMA IgG in the presence of BCMA-CHO cells

