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Data Sheet

Anti-CD20-Anti-CD3 Bispecific Antibody

Catalog #:100836

Lot #: 200722 **Conc.:** 2.87 mg/ml

Product description: Anti-CD20-Anti-CD3 Fc format bispecific antibody is a purified recombinant human bispecific antibody with T cell Engager. This bispecific antibody has been tested for specific activity in the functional reporter assay using NFAT-luc reporter Jurkat cell line (BPS Bioscience #60621) in the presence of CD20-CHO cells (BPS Bioscience #79624-H).

Background: CD20 (MS4A1) is a glycosylated phosphoprotein expressed on the cell surface of B cells. Although the functional significance of CD20 is not clear, and CD20 has no known ligands, CD20 has been shown to regulate intracellular calcium levels. CD20 is a highly attractive target antigen for immunotherapy because it is expressed in more than 90% of patients with B-cell lymphoma. First approved in 1997, Rituximab (Rituxan) is a chimeric monoclonal antibody targeting CD20 and has been classified by the World Health Organization as an "Essential Medicine". Since then, additional monoclonal antibodies against CD20 have been approved or are being tested in clinical trials for the treatment of multiple sclerosis (MS), chronic lymphocytic leukemia (CLL), follicular lymphoma, diffuse large B cell lymphoma (DLBCL), rheumatoid arthritis, non-Hodgkin's lymphoma, systemic lupus erythematosus, and myalgic encephalomyelitis (chronic fatigue syndrome).

Application: This product is for research use only. It is not suitable for human, diagnostic or therapeutic use. The anti-CD20-anti-CD3 Fc format bispecific antibody can be used for studying CD20+ cancer cell-mediated T cell activation, using either primary T cells or reporter cell lines such as NFAT-luc-Jurkat cells (BPS Bioscience #60621).

Host Species: Human

Formulated in: 8 mM phosphate, 110 mM NaCl, 2.2 mM KCl, pH 7.4, and 20% glycerol

Purification: Protein A affinity purification of Fc-tag protein from HEK293 cells.

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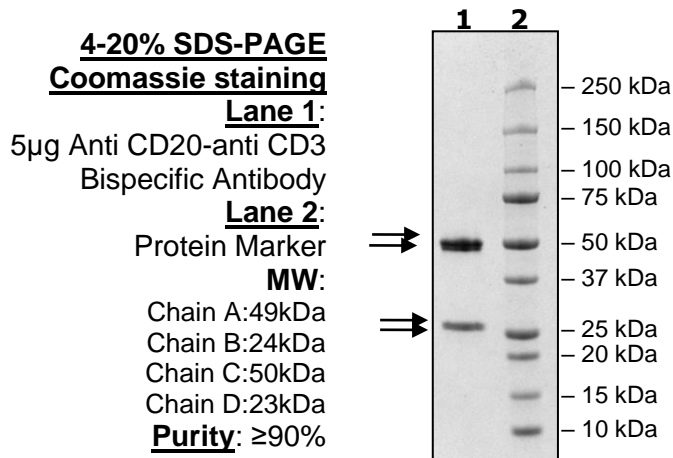
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Stability: Stable for at least 12 months at -80°C. Avoid freeze/thaw cycles.

Fig. 1: Protein expression and purification of Anti-CD20-anti-CD3 Bispecific Antibody



Experimental design and assay protocol for measuring anti CD20-anti CD3 functional activity using NFAT-luc reporter Jurkat cell line:

Jurkat effector cells with endogenous TCR/CD3 and transfected reporter NFAT-luc (BPS Bioscience #60621) are incubated with increasing concentrations of anti CD20 x anti CD3 bispecific antibody in the presence of CD20-CHO cells (BPS Bioscience #79624-H) or CHO cells (ATCC #CCL-61™).

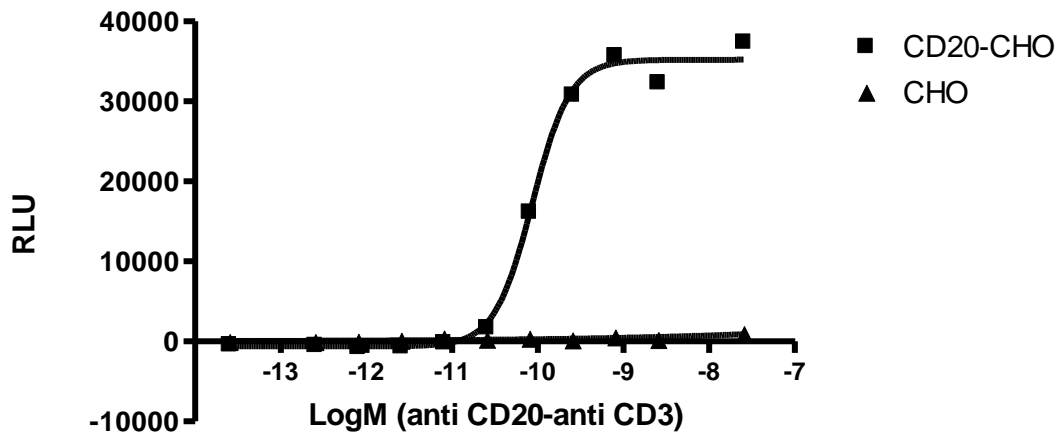
1. Seed CHO and CD20-CHO cells at 30,000 cells/well and allow a few hours for the cells to attach in a 96-well clear bottom white plate.
2. Seed Jurkat cells at 30,000 cells/well.
3. Add the bispecific antibody at a recommended dilution range of 100 fM-100 nM. The bispecific antibody simultaneously binds to TCR/CD3 on Jurkat reporter cells and tumor antigen CD20 on CD20-CHO cells.
4. After 16 hours the luciferase activity is measured by ONE-Step™ luciferase assay (BPS Bioscience #60690) per recommended protocol. The bispecific antibody interaction stimulates NFAT-luciferase activity.

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Fig. 2: Activation of NFAT Reporter Jurkat cells by anti CD20-anti CD3 bispecific antibody in the presence of CD20-CHO cells or CHO cells

Activation of NFAT-Jurkat Reporter by anti CD20-anti CD3



EC50=86.26pM

Related Products:

<u>Product</u>	<u>Cat. #</u>	<u>Size</u>
NFAT Reporter (Luc) – Jurkat Cell Line	60621	2 vials
CD20 CHO Cell Line (High Expression)	79624-H	2 vials
ONE-Step™ Luciferase Assay System	60690-1	10 ml
Anti CD20 agonist antibody	71209	100 µg
Anti-BCMA-Anti-CD3 Bispecific Antibody	100689-1	50 µg
Anti-CD19-Anti-CD3 Bispecific Antibody	100441	50 µg
CD20 CHO Cell Line (Medium Expression)	79624-M	2 vials
CD20 CHO Cell Line (Low Expression)	79624-L	2 vials

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