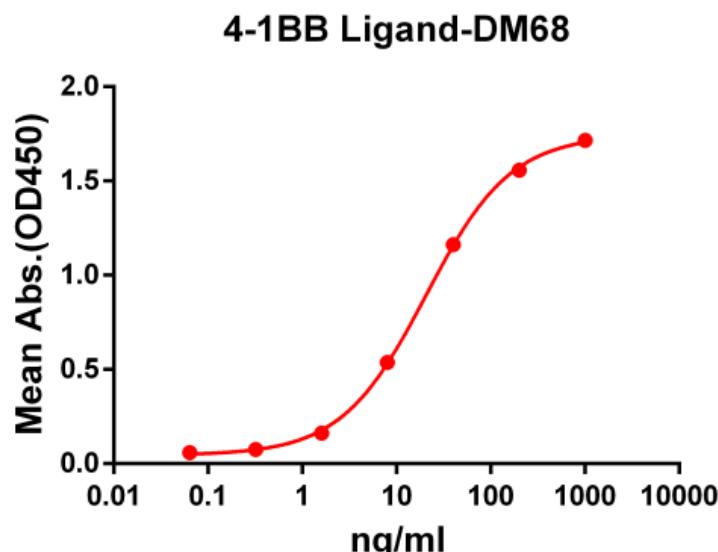


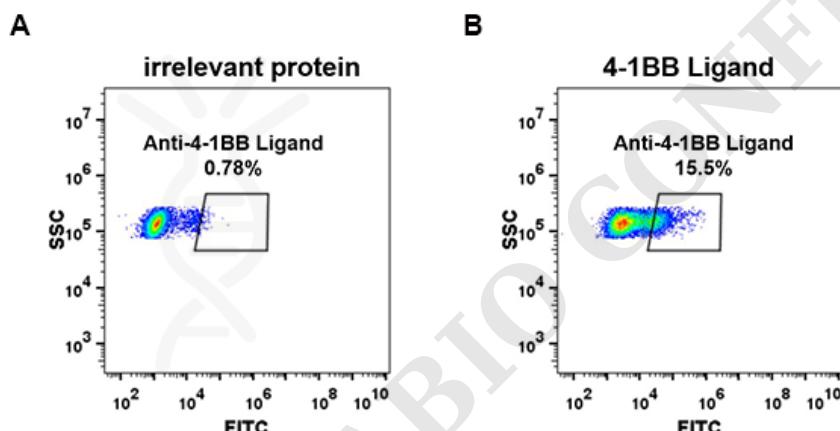
## PRODUCT INFORMATION

<b>Clone ID</b>	DM68
<b>Target</b>	4-1BB Ligand
<b>Synonyms</b>	4-1BB Ligand;TNFSF9;CD137L
<b>Host Species</b>	Rabbit
<b>Description</b>	Anti-4-1BB Ligand antibody(DM68); Rabbit mAb
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P41273
<b>IgG type</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Reactivity</b>	Human
<b>Applications</b>	ELISA; Flow Cyt
<b>Recommended Dilutions</b>	ELISA 1:5000-10000; Flow Cyt 1:100
<b>Purification</b>	Purified from cell culture supernatant by affinity chromatography
<b>Formulation &amp; Reconstitution</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
<b>Storage&amp;Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Background</b>	The protein encoded by this gene is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This transmembrane cytokine is a bidirectional signal transducer that acts as a ligand for TNFRSF9:4-1BB; which is a costimulatory receptor molecule in T lymphocytes. This cytokine and its receptor are involved in the antigen presentation process and in the generation of cytotoxic T cells. The receptor TNFRSF9:4-1BB is absent from resting T lymphocytes but rapidly expressed upon antigenic stimulation. The ligand encoded by this gene; TNFSF9:4-1BBL; has been shown to reactivate anergic T lymphocytes in addition to promoting T lymphocyte proliferation. This cytokine has also been shown to be required for the optimal CD8 responses in CD8 T cells. This cytokine is expressed in carcinoma cell lines; and is thought to be involved in T cell-tumor cell interaction.
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated
<b>DIMA Disclaimer</b>	All DIMA recombinant antibodies are genuinely generated by DIMA Biotech. They are all under patent application. Any protein sequencing or reverse engineering attempt is prohibited. We are actively scrutinizing all patent application to ensure no IP infringement.

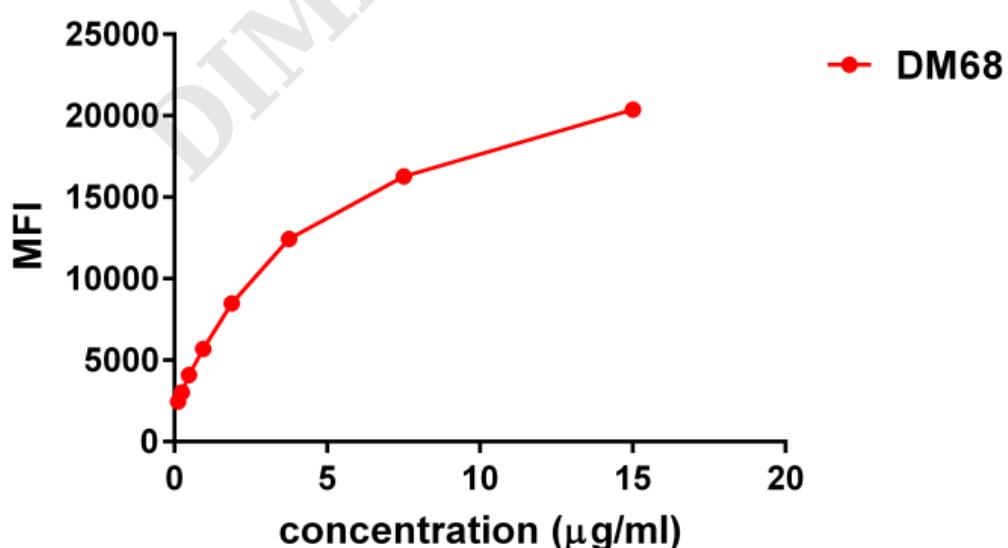




**Figure 1.** ELISA plate pre-coated by 2  $\mu$ g/ml (100  $\mu$ l/well) Human 4-1BB Ligand protein, mFc-His tagged protein ([getskuurl sku="PME100054"]]) can bind Rabbit anti-4-1BB Ligand monoclonal antibody (**clone: DM68**) in a linear range of 1-100 ng/ml.



**Figure 2.** HEK293 cell line transfected with irrelevant protein (**A**) and human 4-1BB Ligand (**B**) were surface stained with Rabbit anti-4-1BB Ligand monoclonal antibody 1 $\mu$ g/ml (**clone: DM68**) followed by Alexa 488-conjugated anti-rabbit IgG secondary antibody.



**Figure 3.** Flow cytometry data of serially titrated Rabbit anti-4-1BB Ligand monoclonal antibody (**clone: DM68**) on Raji cells. The Y-axis represents the mean fluorescence intensity (MFI) while the X-axis represents the concentration of IgG used.

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