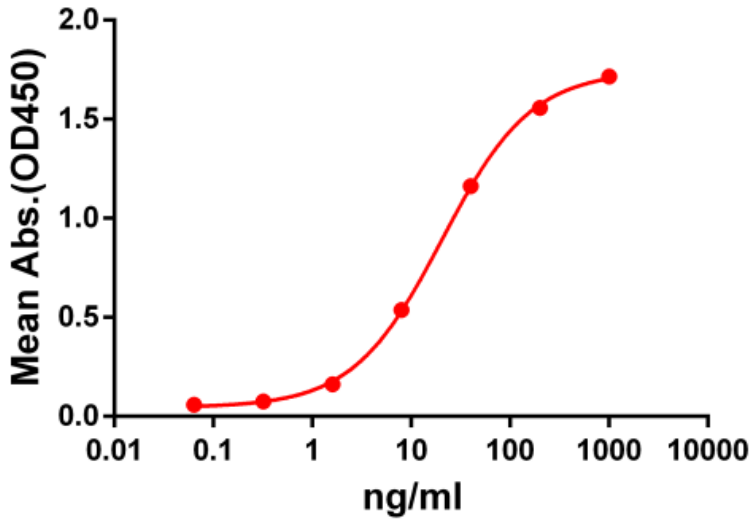


**PRODUCT INFORMATION**

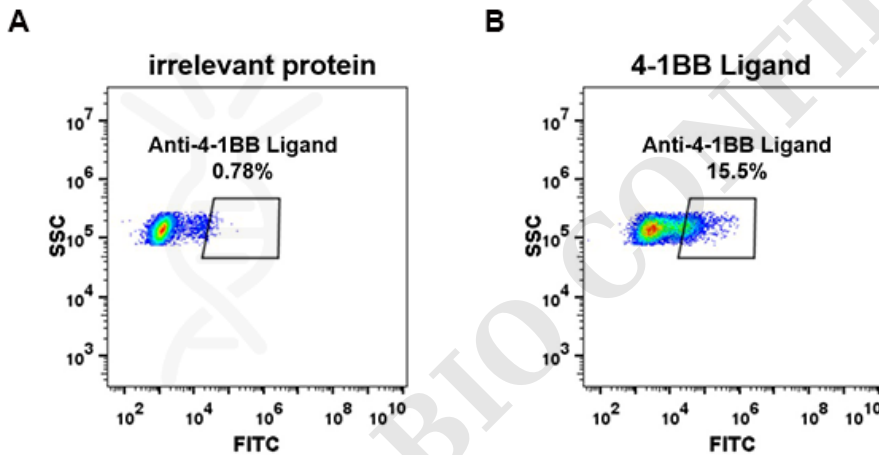
<b>Clone ID</b>	DM68
<b>Target</b>	4-1BB Ligand
<b>Synonyms</b>	4-1BB Ligand;TNFSF9;CD137L
<b>Host Species</b>	Rabbit
<b>Description</b>	Anti-4-1BB Ligand antibody(DM68); Rabbit mAb
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P41273
<b>IgG type</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Reactivity</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. 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>Storage &amp; Shipping</b>	
<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



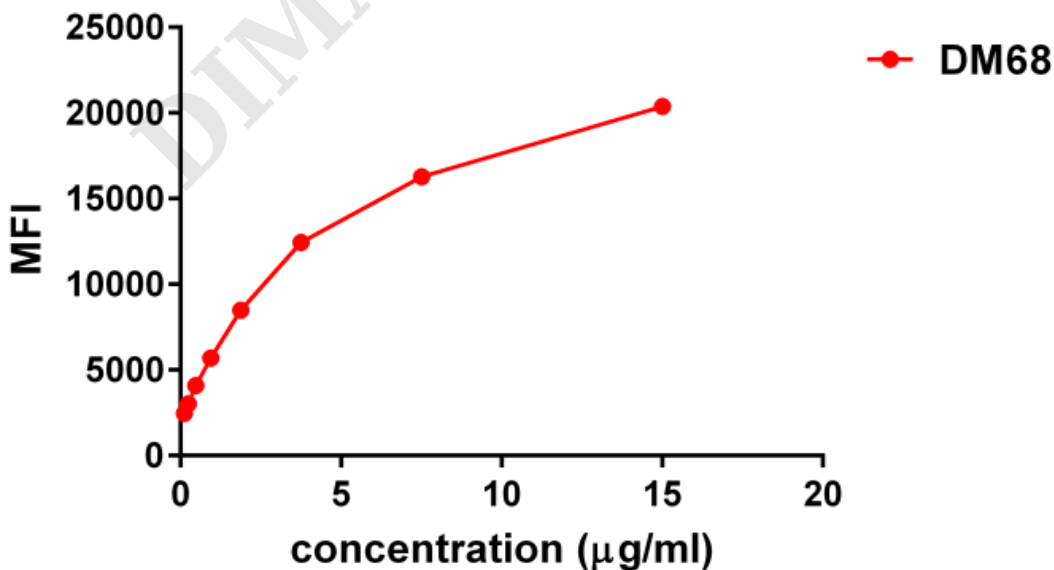
### 4-1BB Ligand-DM68



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



**Figure 2.** Expi 293 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 $\mu\text{g/ml}$  (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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