

PRODUCT INFORMATION

Target	IL1B
Synonyms	IL-1;IL1-BETA;IL1beta;IL1F2
Description	Recombinant Human IL1B Protein with C-terminal human Fc tag
Delivery	In Stock
Uniprot ID	P01584
Expression Host	HEK293
Tag	C-Human Fc Tag
Molecular Characterization	IL1B(Ala117-Ser269) hFc(Glu99-Ala330)
Molecular Weight	The protein has a predicted molecular mass of 43.5 kDa after removal of the signal peptide. The apparent molecular mass of IL1B-hFc is approximately 35-55 kDa due to glycosylation.
Purity	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	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.
Storage & Shipping	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.
Background	The protein encoded by this gene is a member of the interleukin 1 cytokine family. This cytokine is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. Similarly, IL-1B has been implicated in human osteoarthritis pathogenesis. Patients with severe Coronavirus Disease 2019 (COVID-19) present elevated levels of pro-inflammatory cytokines such as IL-1B in bronchial alveolar lavage fluid samples. The lung damage induced by the Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is to a large extent, a result of the inflammatory response promoted by cytokines such as IL-1B. This gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2. [provided by RefSeq, Jul 2020]
Usage	Research use only



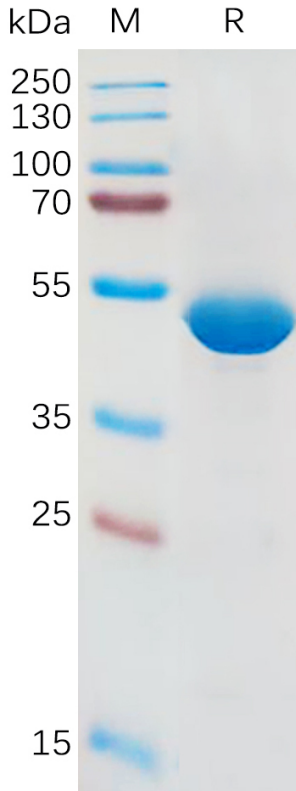


Figure 1. Human IL1B Protein, hFc Tag on SDS-PAGE under reducing condition.

Human IL1B, hFc Tagged protein ELISA

0.1 μ g of Human IL1B, hFc tagged protein per well

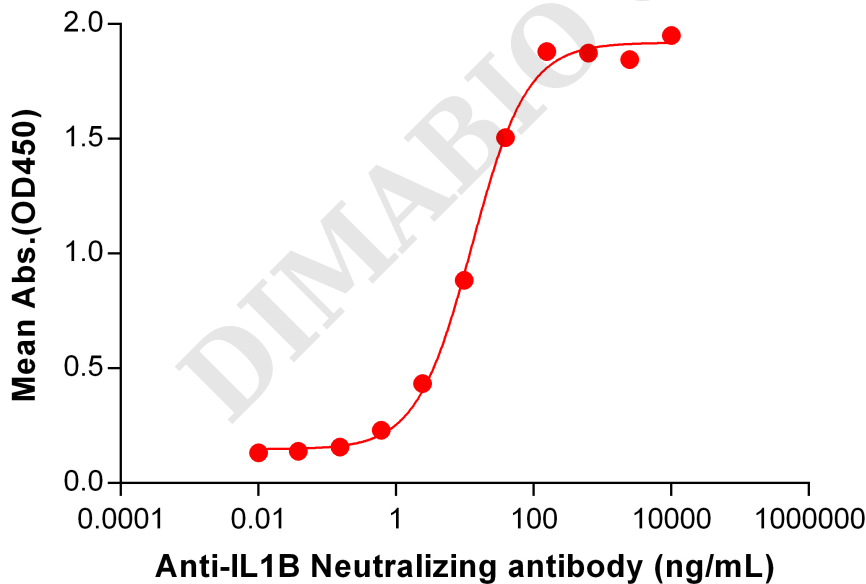


Figure 2. ELISA plate pre-coated by 1 μ g/mL (100 μ L/well) Human IL1B Protein, hFc Tag (PME100838) can bind Anti-IL1B Neutralizing antibody BME100116 in a linear range of 0.61-156.25 ng/mL.



Human IL1B, hFc Tagged protein ELISA

0.2 μg of Human IL1R2, His tagged protein per well

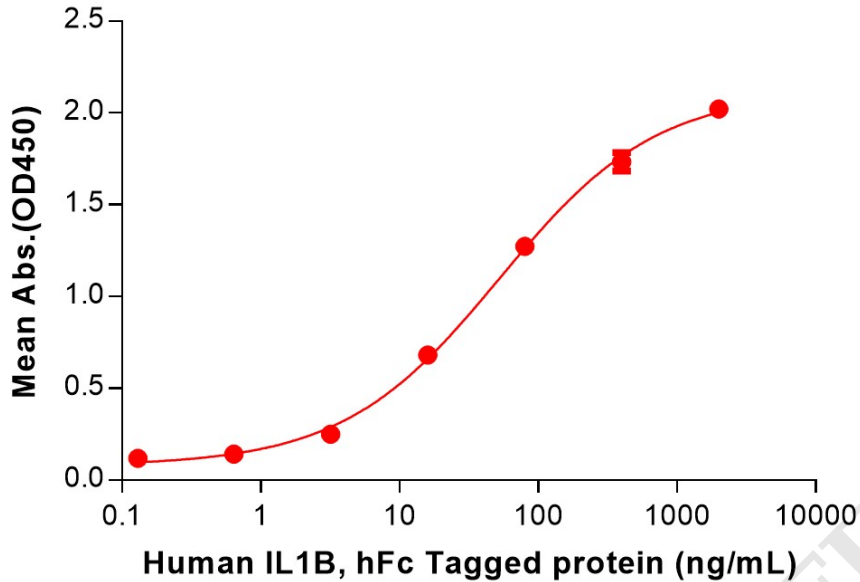


Figure 3. ELISA plate pre-coated by 2 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{well}$) Human IL1R2 Protein, His Tag (PME100748) can bind Human IL1B Protein, hFc Tag (PME100838) in a linear range of 3.20–400 ng/mL.

Human IL1B, hFc Tagged protein ELISA

0.2 μg of Human IL1B, hFc tagged protein per well

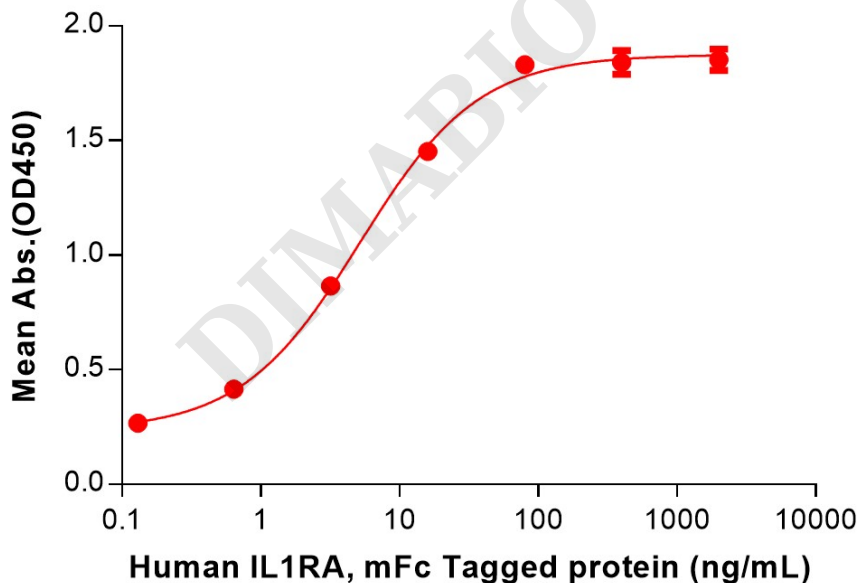


Figure 4. ELISA plate pre-coated by 2 $\mu\text{g}/\text{mL}$ (100 $\mu\text{L}/\text{well}$) Human IL1B Protein, hFc Tag (PME100838) can bind Human IL1RA Protein, mFc Tag (PME101500) in a linear range of 0.64–80 ng/mL.

