

## PRODUCT INFORMATION

<b>Target</b>	IL1B
<b>Synonyms</b>	IL-1;IL1-BETA;IL1beta;IL1F2
<b>Description</b>	Recombinant Human IL1B Protein with C-terminal human Fc tag
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P01584
<b>Expression Host</b>	HEK293
<b>Tag</b>	C-Human Fc Tag
<b>Molecular Characterization</b>	IL1B(Ala117-Ser269) hFc(Glu99-Ala330)
<b>Molecular Weight</b>	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.
<b>Purity</b>	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
<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>Sterility</b>	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
<b>Background</b>	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]
<b>Usage</b>	Research use only
<b>Conjugate</b>	Unconjugated





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

### Human IL1B, hFc Tagged protein ELISA

0.1  $\mu\text{g}$  of Human IL1B, hFc tagged protein per well

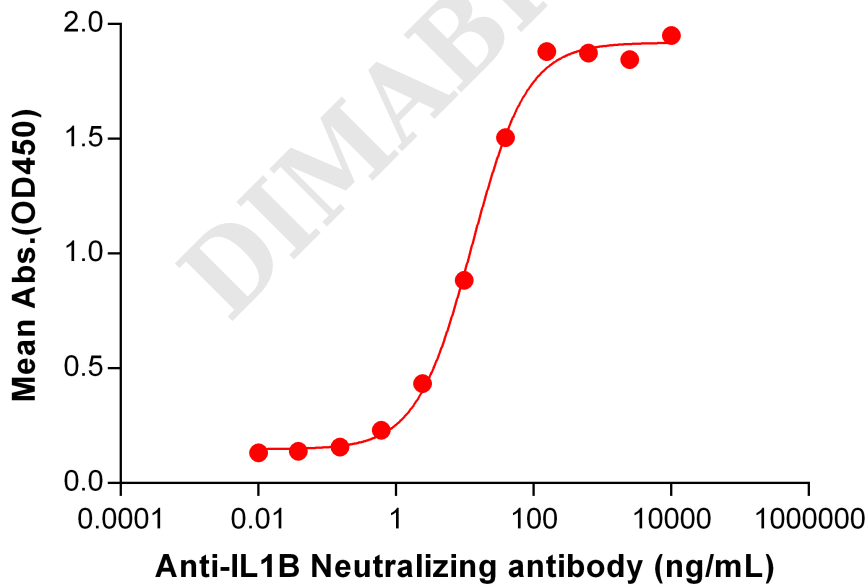


Figure 2. ELISA plate pre-coated by 1  $\mu\text{g}/\text{mL}$  (100  $\mu\text{L}/\text{well}$ ) Human IL1B Protein, hFc Tag (PME100838) can bind Anti-IL1B Neutralizing antibody BME100116 in a linear range of 0.61-156.25 ng/mL.



### Human IL1B, hFc Tagged protein ELISA

0.2 µg of Human IL1R2, His tagged protein per well

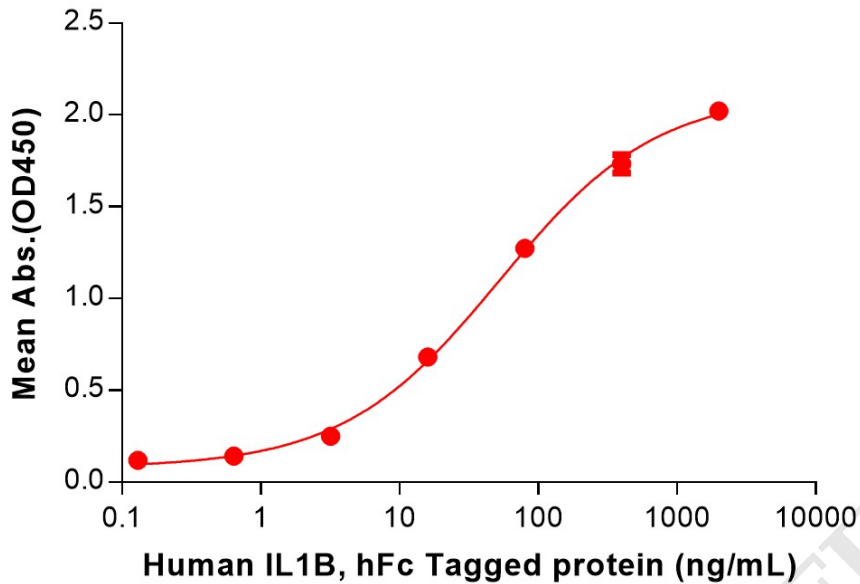


Figure 3. ELISA plate pre-coated by 2 µg/mL (100 µL/well) Human IL1R2 Protein, His Tag (PME100748) can bind Human IL1B Protein, hFc Tag (PME100838) in a linear range of 3.20-400 ng/mL.

### Human IL1B, hFc Tagged protein ELISA

0.2 µg of Human IL1B, hFc tagged protein per well

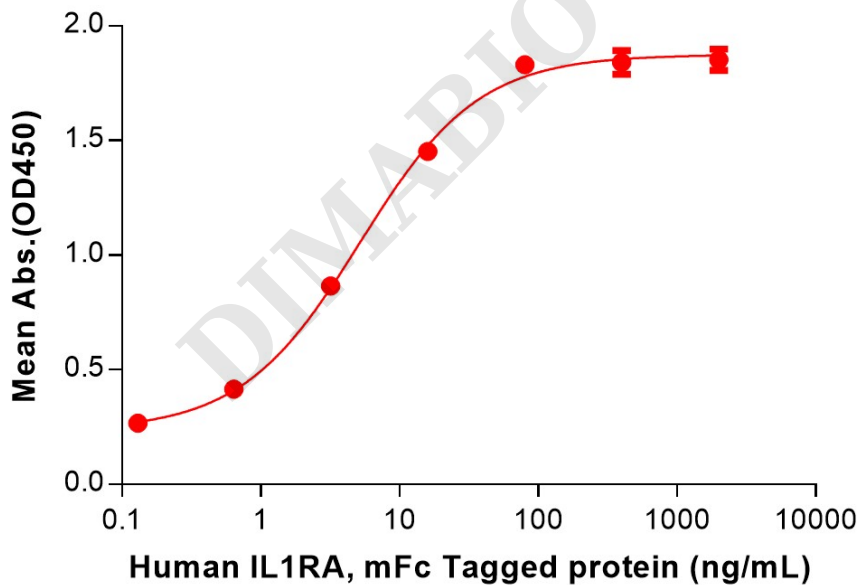


Figure 4. ELISA plate pre-coated by 2 µg/mL (100 µL/well) Human IL1B Protein, hFc Tag (PME100838) can bind Human IL1RA Protein, mFc Tag (PME101500) in a linear range of 0.64-80 ng/mL.

