

HUMAN IL1B PROTEIN, HFC TAG

Cat.#: 11619

Product Name: Human IL1B Protein

Size: 10 µg, 50 µg and 100 µg

Synonyms: IL-1;IL1-BETA;IL1beta;IL1F2

Target: IL1B

UNIPROT ID: P01584

Description: Recombinant Human IL1B Protein with C-terminal human Fc tag

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 (CASPI/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]

Species/Host: HEK293

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.

Molecular Characterization: IL1B(Ala117-Ser269) hFc(Glu99-Ala330)

Purity: The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

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.

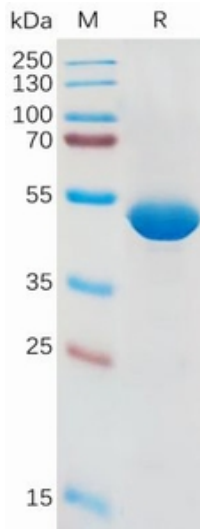


Figure 1. Human IL1B Protein, hFc Tag on SDS-PAGE under reducing condition.

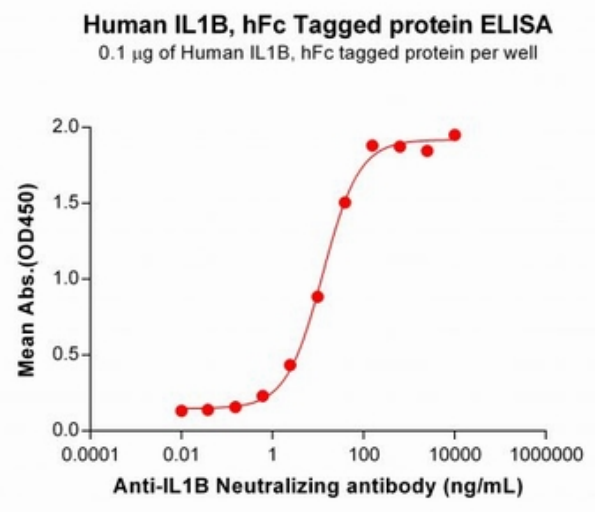


Figure 2. ELISA plate pre-coated by 1 µg/ml (100 µl/well) Human IL1B Protein, hFc Tag (11619) can bind Anti-IL1B Neutralizing antibody 28114 in a linear range of 0.61-156.25 ng/mL.