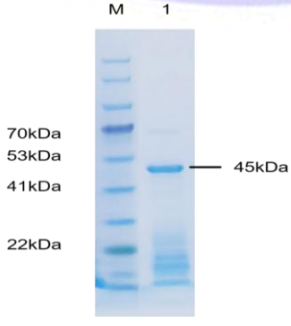
Human Interleukin 1β (IL-1β) Protein, Recombinant

I. For sale

Product name	Catalog #	Size
Human Interleukin 1β (IL-1β) Protein, Recombinant	P01I0010	10ug
		50ug
		500ug
		1mg

II. Product Description

Other Names	IL-1; IL1F2; IL1beta; IL1-BETA
Protein & NCBI Number	P01584, NM_000576.3
Host	E.coli
Express Region	Met1-Ser269
Protein Sequence	MAEVPELASEMMAYYSGNEDDLFFEADGPKQMKCSFQDLDLCPLDGGIQLRISDHHYSKGF RQAASVVVAMDKLRKMLVPCPQTFQENDLSTFFPFIFEEEPIFFDTWDNEAYVHDAPVRSLN CTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFSMSFVQGEESNDKIPVALGLKEKNLY LSCVLKDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNKLEFESAQFPNWYISTSQAENMP VFLGGTKGGQDITDFTMQFVSS
Molecular Weight	The protein molecule consists of 395 amino acids (including the fusion tag), with a predicted molecular weight of 45.1 kDa and an actual molecular weight of 47-50 kDa.
Fusion Tag	6×His-SUMO (N-terminus)
Purity	≥60% SDS-PAGE
Physical Property	Liquid
Components	0.01M PBS+20% glycerol, sterile solution
Storage & Stability	After aliquoting, the stability of the samples can be maintained for up to 6 months at -20°C to -80°C, avoiding repeated freeze-thaw cycles.
Applications	Antibody preparation, immunoassay (ELISA, WB), subcellular localization and interaction protein identification, etc.
Lead Time	5 to 10 business days; 2 to 3 days for stock products
Figure. SDS-PAGE	 Bis-Tris (MOPS) SDS-PAGE

III. **Storage and Transportation**

Transport at 2-8℃, product is stable for up to twelve months from date of receipt under sterile conditions at -20℃ to -80℃.

IV. **Notes**

This product is for research use only. Please wear laboratory attire and disposable gloves when handling.

V. **Background**

Interleukin IL-1 β also known as catabolin, is a member of the interleukin 1 cytokine family. IL1B, the cytokine encoded by the IL1B gene, is an inflammatory response and fever mediator, and contributes to several lymphocyte activities including growth and differentiation of B-cells, proliferation of T-helper Type2 (Th2) clones, and activation of Th17 cells. IL-1 β is produced in peripheral blood mononuclear cells, tissue macrophages, and dendritic fine cells in response to immune responses, inflammation, infection, and trauma cells such as cytium. IL1B is required for T-cell activation in some immune responses, and thus could contribute to increased T-cell replication. IL-1 β can also act on distant target cells in an endocrine manner to induce systemic immune response. IL-1 β can rapidly induce the expression of cytokines such as IL-6 and IL-8 of various cell types. At the same time, IL-1 β also induces its own expression, forming a positive feedback loop and amplifying the IL-1 response.

VI**. References**

1. Niquelle Brown Wadé et al. Infectious mononucleosis, immune genotypes, and non-Hodgkin lymphoma (NHL): an InterLymph Consortium study. Cancer Causes & Control: An International Journal of Studies of Cancer in Human Populations, 2020, 31(599) : 451-462
2. Lichtman AH, Chin J, Schmidt JA, Abbas AK (1988) Role of interleukin 1 in the activation of T lymphocytes. Proc Natl Acad Sci U S A 85:9699–9703
3. Schett G, Dayer J-M, Manger B (2016) Interleukin-1 function and role in rheumatic disease. Nat Rev Rheumatol 12:14–24