

human IL-1 beta, tag-free

Interleukin 1 beta, pro-inflammatory cytokine

Cat. no. P2020-136

Product Information

Protein:	human IL-1 beta, tag-free (~ 17.6 kDa)
Uniprot#:	P01584
Sequence:	MAPVRSLNCTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFMSFVQGEESNDKIPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNKLFEFSAQFPN WYISTSQAENMPVFLGGTKGGQDITDFTMQFVSS
	Methionine at pos. 1 might be present due to cloning constraints.
Source:	Recombinantly expressed in <i>E. coli</i> .
Tag(s):	None.
Purification:	Purified by affinity chromatography and subsequent buffer exchange. N-terminal His-tag removed by TEV cleavage (cleavage reaction purified by inverse affinity chromatography).
Formulation:	PBS; pH 7.4. Liquid, stored and shipped at -80 °C.
Purity:	> 95 % (will be determined by densitometry of Coomassie stained gel, example next page)
Concentration:	Will be determined by BCA-Assay.
Long-term storage:	No recommendations.

Background Information:

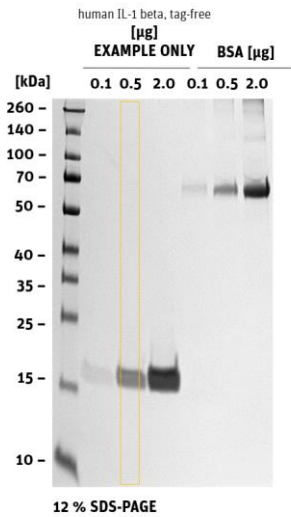
The pro-inflammatory cytokine Interleukin-1 beta (IL-1 beta) is produced by a variety of cell types, including macrophages, dendritic cells, fibroblasts, endothelial cells and keratinocytes. Activation of IL-1 beta is tightly regulated as it is first produced as inactive precursor in response to infection or cell injury and has to be proteolytically cleaved by caspase-1, which is activated by a cytosolic pro-inflammatory signaling complex, the inflammasome. Proteolytic cleavage of pro-IL-1 beta results in secretion of mature IL-1 beta and induction of inflammatory responses by binding to the IL-1 type I receptor (IL-1RI). In particular, activation of IL-1 beta induces inflammation, fever, synthesis of acute phase proteins, as well as proliferation and differentiation of lymphocytes emphasizing its versatile biological functions. Activity is further regulated by several endogenous inhibitors including IL-1 type II receptor (IL-1RII) and IL-1 receptor antagonist (IL-1Ra). Dysregulation causes pathological conditions ranging from chronic inflammatory and autoinflammatory diseases to autoimmune syndromes, neurodegenerative diseases and cancer.



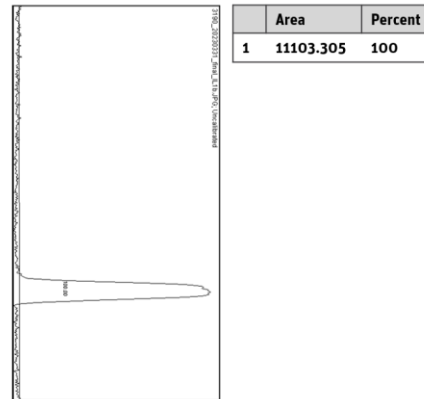
Structural model of human IL-1 beta, tag-free

Product Information

Quality Information (provided for each lot):



SDS-PAGE/Coll.Coomassie



Histogram (of marked lane in gel picture)