IL-36 beta/IL-1F8 Protein, Human (His)

Cat. No.:	HY-P74803
Synonyms:	Il36b; Fil1e; Il1f8; Interleukin-36 beta; Interleukin-1 family member 8; IL-1F8
Species:	Human
Source:	E. coli
Accession:	Q9NZH7-2 (K5-E157)
Gene ID:	27177
Molecular Weight:	Approximately 20 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IL-36 beta (IL-1F8), a subform of IL-36 family, belongs to IL-1 superfamily. IL-36 beta is expressed in monocytes, T/B-lymphocytes, bone-marrow, tonsils, heart, lung, testis, colon, neuron cells, glial cells[3]. The sequence of amino acids in IL-36 beta differs in different species. Human IL-36 beta shares <40% aa sequence identity with mouse. L-36 beta binds to IL-36R and recruits the co-receptor IL-1RAcP. So that heterodimeric signaling complex brings Toll/IL-1R (TIR) domains of the 2 receptor chains in close proximity, and thereby activating NF-κB and MAPK signaling pathways[1]. But the activation requires N-terminal cleavage at Arg5 by neutrophil granule-derived proteases, such as cathepsin G, elastase and proteinase-3[2]. IL-36β plays a role cell maturation in human bone marrow mononuclear cells and DC cells. IL-36β is associated with the development of inflammatory bowel disease (IBD). The serum levels of IL36β are usually higher in patients with IBD[4]. IL-36 beta is a pro-inflammatory factor. IL-36 beta mediates inflammatory response through the activation of NF-κB and MAPK signaling pathway[2].

REFERENCES

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