

Recombinant Human Interleukin-17B (Human IL-17B)

Product Information

Product Name	Cat#	Size
Recombinant Human Interleukin-17B (Human IL-17B)	90116ES08	5 µg
	90116ES60	100 µg
	90116ES76	500 µg

Product Description

The Interleukin 17B (IL-17) family proteins, comprising six members (IL-17, IL-17B through IL-17F), are secreted, structurally related proteins that share a conserved cystine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus (1, 2). With the exception of IL-17B, which exists as a non-covalently linked dimer, all IL-17 family members are disulfide-linked dimers (3). IL-17 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions (1, 2). Two receptors (IL-17 R, and IL-17B R), which are activated by IL-17 family members, have been identified. In addition, at least three additional orphan type I transmembrane receptors with homology to IL-17 R, including IL-17 RL (IL-17 RC), IL-17 RD, and IL-17 RE, have also been reported (1-4). Human IL-17B cDNA encodes a 180 aa protein with a putative 20 aa signal peptide (5, 6). Human and mouse IL-17B share 88% amino acid sequence identity. Among IL-17 family members, IL-17B is most closely related to IL-17D, sharing 27% aa sequence homology. IL-17B is expressed highly in spinal cord, and at lower levels in brain, kidney, lung, small intestine, prostate, testes, pancreas, adrenal gland and trachea (5-7). Expression of IL-17B has also been detected in chondrocytes in articular cartilage (2). IL-17B binds the IL-17B receptor but not IL-17 R and exhibits bioactivities distinct from those of IL-17 (5, 6).

Product Properties

Synonyms	IL-17B
Accession	Q9UHF5
GeneID	27190
Source	E.coli-derived human IL-17B protein, Gln21-Phe180, with an N-terminal Met.
Molecular Weight	Approximately 36.5 kDa, a non-disulfide-linked homodimer of two 161 amino acid polypeptide chains. MQPRSPKSKR KGQGRPGPLA PGPHQVPLDL VSRMKPYARM EYERNIEEM VAQLRNSSEL
AA Sequence	AQRKCEVNLQ LWMSNKRSLS PWGYSINHDP SRIPVDLPEA RCLCLGCVNP FTMQEDRSMV SVPVFSQVPV RRRLCPPPPR TGPCRQRAVM ETIAVGCTCI F
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by inducing IL-8 secretion of human HepG2 cells is less than 1.0 µg/ml, corresponding to a specific activity of > 1000 IU/mg.
Endotoxin	< 0.1 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 0.1% Tween-20 and 3% Trehalose.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.