Recombinant Mouse IL-17B

Catalog Number: 1709-ML

DESCRIPTION

Source	*E. coli*-derived His21-Phe180, with an N-terminal Met Accession # Q9QXT6
N-terminal Sequence Analysis	Met
Predicted Molecular Mass	18.2 kDa (monomer)

SPECIFICATIONS

Activity	Measured by its ability to induce IL-8 secretion by HepG2 human hepatocellular carcinoma cells. Tang, Y. *et al.* (2011) Clin. Exp. Immunol. **166**:281. The ED_{50} for this effect is typically 0.4-2 µg/mL. Measured by its ability to bind Recombinant Mouse IL-17B R Fc Chimera (Catalog # 1040-BR) in a functional ELISA.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in NaH_2PO_4 and NaCl with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile 4 mM HCl containing at least 0.1% human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The Interleukin 17 (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). Mouse IL-17B cDNA encodes a 180 amino acid residue (aa) protein with a putative 20 aa signal peptide (5). Mouse and human IL-17B share 88% aa sequence identity. Among IL-17 family members, mouse IL-17B is most closely related to mouse IL-17D, sharing 33% 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).

References:

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