Sterile	Mouse Interleukin-17B (mIL-17B)	Cell Signaling
#9584	SC 10 μg SF 10 μg   (With Carrier) (Carrier Free)   LC 50 μg LF 50 μg   (With Carrier) (Carrier Free)   Multi-milligram quantities available New 09/11	Orders 877-616-CELL (2355) orders@cellsignal.com Support 877-678-TECH (8324) info@cellsignal.com Web www.cellsignal.com
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Source: Recombinant mouse IL-17B (mIL-17B) His21-Phe180 (Accession #NP\_062381) was produced in *E. coli* at

Cell Signaling Technology.

**Molecular Characterization:** Recombinant mIL-17B has a Met on the amino terminus and has a calculated MW of 18,186. DTT-reduced and non-reduced protein migrate as 19 kDa polypeptides. The expected amino-terminal MHPRN of recombinant mIL-17B was verified by amino acid sequencing.

Endotoxin: Less than 0.01 ng endotoxin/1 µg mIL-17B.

**Purity:** >98% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant mIL-17B. All lots are greater than 98% pure.



The purity of recombinant mIL-17B was determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant mIL-17B and staining overnight with Coomassie Blue.

**Bioactivity:** The activity of mIL-17B was assessed by its ability to bind to IL-17RB in a functional ELISA. The concentration at which half-maximal binding was observed for each lot was  $0.1-1.0 \mu g/mI$ .



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The activity of mIL-17B was assessed by its ability to bind to IL-17RB in a functional ELISA. Formulation: With carrier: Lyophilized from a 0.22  $\mu m$  filtered solution of PBS, pH 7.2 containing 20  $\mu g$  BSA per 1  $\mu g$  mIL-17B.

Carrier free: Lyophilized from a 0.22  $\mu m$  filtered solution of PBS, pH 7.2.

## **Reconstitution:**

With carrier: Add sterile PBS or PBS containing 1% bovine or human serum albumin or 5-10% FBS to a final mIL-17B concentration of greater than 50  $\mu$ g/ml. Solubilize for 30 minutes at room temperature with occasional gentle vortexing.

Carrier free: Add sterile PBS or PBS containing protein to minimize absorption of mIL-17B to surfaces. Solubilize for 30 minutes at room temperature with occasional gentle vortexing. Stock mIL-17B should be greater than 50 µg/mI.

**Storage:** Stable in lyophilized state at 4°C for 1 year after receipt. Sterile stock solutions reconstituted with carrier protein are stable at 4°C for 2 months and at -20°C for 6 months. Avoid repeated freeze-thaw cycles.

Maintain sterility. Storage at -20°C should be in a manual defrost freezer.

**Applications:** Optimal concentration for the desired application should be determined by the user.

**Background:** IL-17B is a member of the IL-17 family of structurally related proteins (1). Unlike other IL-17 family members, IL-17B is a non-covalently linked homodimer (1,2). IL-17B is expressed by chondrocytes and neurons, and binds to the IL-17RB receptor (1-4). Human IL-17B has been shown to induce TNF- $\alpha$  and IL-1 $\beta$  from monocytic THP-1 cells and may be involved in neutrophil recruitment *in vivo* (3). However, the exact biological functions of IL-17B remain elusive.

## **Background References:**

(1) Iwakura, Y. et al. (2011) Immunity 34, 149-62.

(2) Shi, Y. et al. (2000) J Biol Chem 275, 19167-76.

(3) Moore, E.E. et al. (2002) Neuromuscul Disord 12, 141-50.

(4) Li, H. et al. (2000) Proc Natl Acad Sci U S A 97, 773-8.