

General Information

Synonyms	IL1 beta; IL-1; IL1B; IL-1b; IL1-BETA; IL-1F2; IL1F2IL-1 beta; interleukin 1-beta
Accession #	NP_032387
Source	Human embryonic kidney cell, HEK293-derived mouse IL-1 beta/IL-1F2 protein
	Val118-Ser269
Predicted Molecular weight	17.5 kDa

Components and Storage

Formulation	Solution protein. Dissolved in sterile PBS buffer. This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening.
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Storage and Stability	Avoid repeated freeze-thaw cycles. It is recommended that the protein be aliquoted for optimal storage. 12 months from date of receipt, -20 to -70 °C as supplied.
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Shipping	Shipping with dry ice.
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Quality

Purity	> 95%, determined by SDS-PAGE.
Endotoxin Level	<0.010 EU per 1 ug of the protein by the LAL method.
Activity	Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells. The EC50 for this effect is 1-4 pg/mL.

SDS-PAGE

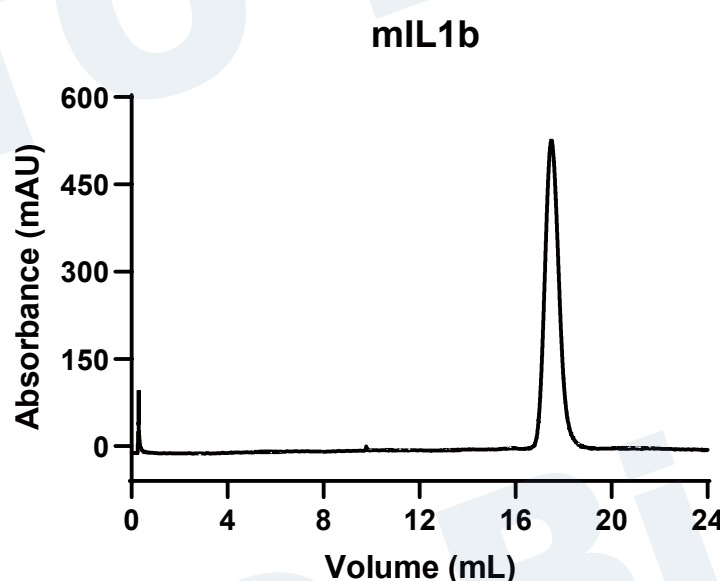
Gel filtration

Bioactivity

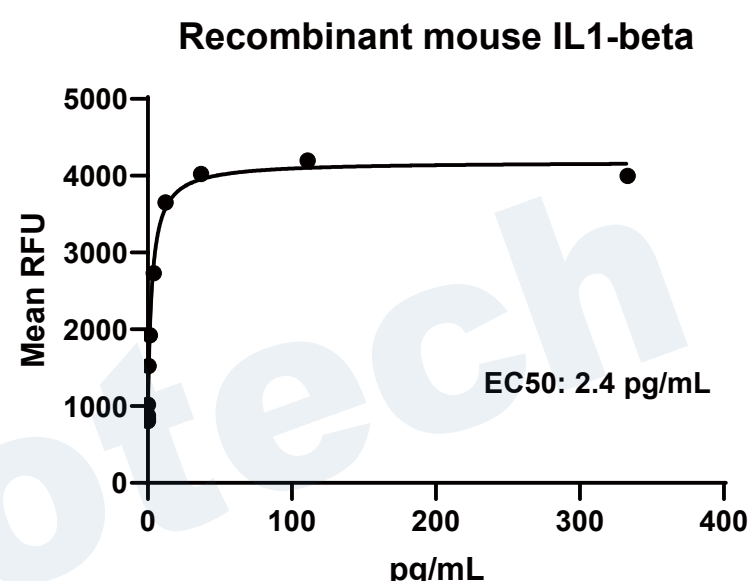
kDa Lane 1 Lane 2



2 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by Coomassie Blue staining.



Size-exclusion chromatography of recombinant mouse IL1b protein (280 nm absorbance)



Recombinant mouse IL1b (Catalog # MF-1001B) stimulates cell proliferation of D10.G4.1 mouse helper T cells.

Background

Interleukin 1 is a name that designates two pleiotropic cytokines, IL-1 alpha (IL-1F1) and IL-1 beta (IL-1F2), which are the products of distinct genes. IL-1 alpha and IL-1 beta are structurally related polypeptides that share approximately 17% amino acid (aa) identity in mouse. Both proteins are produced by a wide variety of cells in response to inflammatory agents, infections, or microbial endotoxins. While IL-1 alpha and IL-1 beta are regulated independently, they bind to the same receptor and exert identical biological effects (1-4). The mouse IL-1 beta cDNA encodes a 269 aa precursor. A 117 aa propeptide is cleaved intracellularly by the cysteine protease IL-1 beta -converting enzyme (Caspase-1/ICE) to generate the active cytokine (5, 6). The 17 kDa mature mouse IL-1 beta shares 90% aa sequence identity with cotton rat and rat and 65%-78% identity with canine, equine, feline, human, porcine, and rhesus IL-1 beta.

Reference

- Allan, S.M. et al. (2005) Nat. Rev. Immunol. 5:629.
- Boraschi, D. and A. Tagliabue (2006) Vitam. Horm. 74:229.
- Kornman, K.S. (2006) Am. J. Clin. Nutr. 83:475S.
- Isoda, K. and F. Ohsuzu (2006) J. Atheroscler. Thromb. 13:21.
- Gray, P.W. et al. (1986) J. Immunol. 137:3644.
- Martinon, F. and J. Tschopp (2007) Cell Death Differ. 14:10.

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