Recombinant Mouse IL-1 beta/IL1B Protein

Catalog Number: PKSM040957

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Mouse
Source	E.coli-derived Mouse IL-1 beta; IL1B protein Val 118-Ser 269, with an C-terminal His
Calculated MW	18.3 kDa
Observed MW	17 kDa
Accession	P10749
Bio-activity	Measure by its ability to induce D10.G4.1 cells proliferation. The ED ₅₀ for this effect is <8 pg/mL. The specific activity of recombinant mouse IL-1 beta is approximately
	>1.2x10 ⁸ IU/mg.
Properties	
Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4.
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	
	kDa
	77
	75- 63-
	48-
	35-
	25-

> 98 % as determined by reducing SDS-PAGE.

17-11-

Background

For Research Use Only

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Interleukin-1 beta (IL1 beta or IL1B) also known as catabolin, is a member of the interleukin 1 cytokine family. IL1 is a pleiotropic cytokine. It is involved in the inflammatory response, cell growth, and tissue repair in the cortex. The IL1 superfamily consists of three members, IL1A (IL1 alpha), IL1B (IL1 beta), and IL1 receptor antagonist (IL1Ra). In clinical, it has been reported that Interleukin (IL)-1 may influence Th1 / Th2 immune responsiveness and has been implicated in the establishment of successful pregnancy. Proinflammatory interleukin (IL)-1 gene polymorphisms associated with high levels of IL-1beta activity increase the risk for hypochlorhydria and distal gastric carcinoma. IL1B polymorphisms may be involved in susceptibility to SSc. Moreover, the IL2-384-G allele may be a marker for the limited phenotype of systemic sclerosis (SSc).