



Recombinant Rabbit IL-1 β

Catalog Number: GR150001

Background

Interleukin-1 beta (IL-1 β) also known as catabolin, is a member of the interleukin 1 cytokine family. IL-1 β precursor is cleaved by caspase 1 (interleukin 1 beta convertase). Cytosolic thiol protease cleaves the product to form mature IL-1 β . Interleukin-1 alpha and interleukin-1 beta forms IL-1 (1,2,3). IL-1 β is produced by activated macrophages as a proprotein, which is proteolytically processed to its active form by caspase 1 (CASP1/ICE). This cytokine is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. The induction of cyclooxygenase-2 (PTGS2/COX2) by this cytokine in the central nervous system (CNS) is found to contribute to inflammatory pain hypersensitivity. IL-1 β gene and eight other interleukin 1 family genes form a cytokine gene cluster on chromosome 2(4).

References

1. Auron PE, et al (1984). Proc Natl Acad Sci U S A 81 (24): 7907–11.
2. March CJ, et al. (1985). Nature 315 (6021): 641–7.
3. Clark BD, et al (1986). Nucleic Acids Res 14 (20): 7897–1914.
4. Entrez Gene: IL1B interleukin 1, beta.
<http://www.ncbi.nlm.nih.gov/sites/entrez?Db=gene&Cmd=ShowDetailView&TermToSearch=3553>



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Description

Size: 10 μ g

Sources: expressed in *E. coli*.

Composition: Met1-Ser268

Accession #: NP_001075670.1

Molecular weight: 31 kDa

Activity: Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells. Symons JA et al. (1987) in Lymphokines and interferons, a Practical Approach. Clemens MJ et al. (eds): IRI Press. 27w
The ED50 for this effect is typically 10-40 pg/ml.

Endotoxin level: <1.0 EU per 1 μ g of the protein by the LAL method.

Purity: > 98%, by SDS-PAGE under reducing conditions and visualized by silver staining.

Formulation: Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein.

Reconstitution: reconstitute at 100 μ g/ml in sterile PBS and store at -20°C ~ -70°C for up to 3 months.

Shipping and storage: The product is shipped at ambient temperature or with ice pad. Upon receipt, store it immediately at -20°C to avoid loss of activity and use it in 12 months.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN HUMANS AND ANIMALS**