

## **DATA SHEET**

## **Product Information**

<b>Product Name</b>	:	Recombinant Human Interleukin-1 Beta (rhIL-1β)
Synonyms	:	IL-1 beta, Catabolin, <i>IL1B</i>
Description	:	Interleukin-1 beta (IL-1 $\beta$ ) known as catabolin, is a cytokine protein that in humans is encoded by the IL1B gene. IL-1 $\beta$ precursor is cleaved by cytosolic caspase 1 (interleukin 1 beta convertase) to form mature IL-1 $\beta$ . Interleukin 1 was discovered by Igal Gery in 1972. He named it lymphocyte-activating factor (LAF) because it was a lymphocyte mitogen. It was not until 1985 that interleukin 1 was discovered to consist of two distinct proteins, now called interleukin-1 alpha and interleukin-1 beta. IL-1 $\beta$ is an important mediator of the inflammatory response, and is involved in a variety of cellular activities, including cell proliferation, differentiation, and apoptosis. (Ref. From Wikipedia)
NCBI Accession No.	:	NM_000576.2
Amino acid sequence	:	MASMAPVRSLNCTLRDSQQKSLVMSGPYELKALHLQGQDMEQQVVFSMSFVQ GEESNDKIPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKRFV FNKIEINNKLEFESAQFPNWYISTSQAENMPVFLGGTKGGQDITDFTMQFVS S
Molecular Mass	:	17.76 kDa (157 aa)
Protein Tags	:	No tagging
Source Cat. No.	:	E. coli. JW-H009-0010, JW-H009-0025, JW-H009-0050, JW-H009-0100, JW-H009-0250, JW-H009-0500, JW-H009-1000
Storage	:	Should be at $\leq$ -70 °C as undiluted aliquots of handy size. Avoid repeated freezing and thawing.
Cross Reactivity	:	Monkey, Mouse, Rat, Rabbit, Pig, Sheep, Cow

## **Quality Control**

Test items	Specifications
Appearance	: Clear, colorless liquid
Purity	: Greater than 98 % by RP-HPLC and SDS-PAGE
Specificity	: Using Western blot, detection TF-1 proliferation assay [7X10 <sup>4</sup> /well, 48h, hlL-1beta]
Concentration	: 0.1 mg/ml, Bradford method
Biological Activity	Determined by proliferation of TF-1 indicator cells  : The ED50 is <14.0 pg/ml, corresponding to a specific activity of > 7.14 × 10 <sup>7</sup> U/mg
Endotoxin	: Less than 0.1 EU/ $\mu g$ as determined by the LAL method
Formulation	: 30 mM sodium citrate-citric acid, 5% glycerol (pH 4.5) without preservative or carrier proteins.
Stability	: Stable for up to 12 months at -70 $^{\circ}$ C. Stable for a month at 4 $^{\circ}$ C.
Sterility	Sterilized through a 0.2 $\mu m$ membrane filter and packaged aseptically. Culture for 2 weeks, no growth

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