Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 009-001-301

IL-1 Beta Human Recombinant Protein

Overview

Description:	IL-1ß Human Recombinant Protein - 009-001-301
Item No.:	009-001-301
Size:	10 µg
Applications:	SDS-PAGE
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Interleukin-1beta (IL-1β) is a proinflammatory cytokine produced in response to inflammatory agents by a variety of cells, including monocytes, macrophages, and dendric cells (DCs). IL-1β and IL-1α are two distinct and independently regulated gene products that comprise IL-1 and signal through the Type 1 IL-1 receptor (IL-1R1). Although IL-1α is cell associated and IL-1β is secreted, they have nearly identical biological activity in that they induce adhesion molecule expression on epithelial cells, control fever induction, and play a role in arthritis and septic shock. Signaling activated by the IL-1R1 promotes these activities through a MYD88 signaling pathway similar to those associated with Toll receptors. Recombinant human IL-1β is a non-glycosylated single chain 17,376 Da protein containing 153 amino acid residues.
Synonyms:	IL-1b cytokine, Interleukin 1b, IL-1ß, IL-1 beta, Catabolin, H1, Hematopoietin 1, IFN beta inducing factor, Interleukin 1 beta, LAF, OAF, Osteoclast activating factor
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IL1B

Purity/Specificity:	Recombinant protein corresponding to amino acids 1 to 153 of mature human Interleukin-1beta (IL-1β). Purity is greater than 97% as determined by reducing and non-reducing SDS-PAGE and by analytical RP-HPLC, each against a known standard.
Relevant Links:	• NCBI • UniProtKB - P01584

Application Details

Tested Applications:	SDS-PAGE
Application Note:	Interleukin-1beta (IL-1β) has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-Interleukin-1beta (IL-1β) in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Biological Activity: IL-1ß activity is determined by the stimulation of D10S.G4.1 cells and is typically less than 12 pg/mL. Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg protein.

Formulation

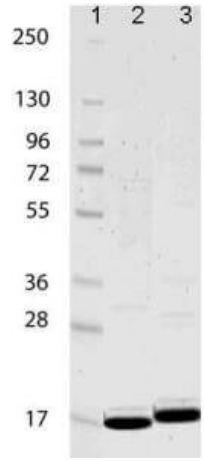
Physical State:	Lyophilized
Concentration:	0.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, pH 7.5
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	10µl (10-100µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient

Storage Condition:	Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE
SDS-PAGE using Rockland's Recombinant Human IL-1ß Protein shows bands corresponding to IL-1ß (1µg) in lane 3 (unreduced, arrowhead) and lane 2 (reduced). Molecular weight estimation was made by comparison to prestained MW markers, lane 1.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.