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Datasheet for 209-403-B73

IL-1 Beta Antibody Peroxidase Conjugated

Overview

Description:	Anti-Human IL-1ß (RABBIT) Antibody Peroxidase Conjugated - 209-403-B73
Item No.:	209-403-B73
Size:	100 µg
Applications:	Dot Blot, WB
Reactivity:	Human, Dog, Primate
Host Species:	Rabbit

Product Details

Background:	IL-1 beta (also known as Interleukin-1 beta, IL-1ß and catabolin) is produced by activated macrophages. IL-1 stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity. IL-1 proteins are involved in the inflammatory response, being identified as endogenous pyrogens, and are reported to stimulate the release of prostaglandin and collagenase from synovial cells. IL-1ß is a monomeric secreted protein that may be released by damaged cells or is secreted by a mechanism differing from that used for other secretory proteins.
Synonyms:	rabbit anti-IL-1 beta peroxidase conjugated Antibody, rabbit anti-interleukin-1 beta peroxidase conjugated antibody, IL-1 beta, Interleukin-1 beta, IL-1ß, catabolin
Host Species:	Rabbit
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	IL1B
Reactivity:	Human, Dog, Primate
Immunogen Type:	Recombinant Protein

Immunogen:	This antibody was prepared by repeated immunizations with recombinant human IL-1ß produced in E.coli. The MW of the recombinant 153 aa IL-1ß was 17 kDa with the N-terminal amino acid at position alanine 117. This cleavage site is generated by the IL-1ß converting enzyme (ICE, capase-1).
Purity/Specificity:	This antibody was heated to 56° C for 30 minutes. This is an IgG preparation of whole rabbit serum purified by DEAE fractionation. This antibody is primarily directed against mature, 17,000 MW human IL-1ß and is useful in determining its presence in various assays. In general, this antibody also detects primate IL-1ß in the same formats using similar dilutions. The antiserum does not recognize human IL-1α. In ELISA formats and other immunoreactive assays, this antibody will recognize 10% of the non-denatured (native) precursor 31,000 MW IL-1ß containing samples but will primarily detect all of the 17,000 MW mature molecule. However, in immunoblot analysis of natural cell products or human body fluids, the usual procedure of hearing the sample in SDS with or without reducing agents will facilitate denaturing of the 31,000 MW IL- 1ß precursor molecule. Denatured 31,000 precursor IL-1ß will be recognized by this antibody but often migrates as a 35,000 MW band. This is due to the unfolding of the denatured precursor IL-1ß exposing epitopes not exposed in the natural state. In immunoblots, depending on the number of cells, the antibody detects the 17,000 MW band in supernatants as well as a 35,000 MW band representing the 31,000 MW IL-1ß precursor in lysates.
Relevant Links:	• UniProtKB - P01584 • NCBI - P01584.2 • GeneID - 3553

Application Details

Tested Applications:	Dot Blot, WB
Application Note:	Anti-Human IL-1ß has been tested in Western Blot. This antibody is suitable for use in neutralizations, ELISA, radioimmunoassays, flow cytometry, immunohistochemistry, and immunoprecipitation. It recognizes the 17,000 MW mature IL-1ß. For immunoblots, typically, IL-1ß is detected from supernatants or lysates of 2 x 10E6 endotoxin-stimulated peripheral blood mononuclear cells (PBMC). PBMC are stimulated for 24 hours with 1% (v/v) serum plus 10 ng/mL E.coli LPS. For immunoprecipitation pre-clearing the preparation with a non-specific Rabbit IgG (p/n 011-001-297) to reduce background is suggested. For immunohistochemistry either paraffin fixation or cryofixation can be used for sample preparation to stain intracellular IL-1ß. For ELISA use HRP Conjugated Anti-Rabbit IgG [H&L] (Goat) (611-1302) for detection. In ELISA formats this antibody is best used as the second antibody in combination with a monoclonal antibody as a capture antibody. This antibody is also useful for neutralization of human and primate IL-1ß activity in bioassays. It does not neutralize the biological activity IL-1α. It does not neutralize the biological activity of murine, rat or rabbit IL-1ß. For neutralization, it is recommended to incubate the sample with a dilution of the antibody for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG is recommended. This antibody can be used for FACS analysis. Caution should be exhibited as the F(c) domain of the rabbit IgG molecule may interact with cells non-specifically.

Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
IHC:	1:500-1:2,500
WB:	1:1,000-1:5,000

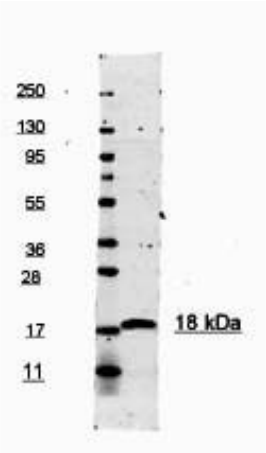
Formulation

Physical State:	Lyophilized
Concentration:	1.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
This antibody is primarily directed against mature, 17,000 MW human IL-1ß and is useful in determining its presence in various assays.

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.