

Product datasheet for R1131

IL1 alpha (IL1A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FN, IHC, WB
Recommended Dilution:	This IgG fraction antibody of anti-Human IL-1a has been tested for use in Neutralizations, ELISA, Immunohistochemistry, Flow Cytometry and Immunoblotting . It recognizes the 17,000 MW mature IL-1a . Reactivity in other immunoassays is unknown. Recommended Dilutions: This product has been assayed by immunoblot using HRP Goat-anti-Rabbit IgG [H&L] and TMB as a substrate. A working dilution range of 1:100 to 1:200 is suggested for this application to detect IL-1a from supernatants or lysates of 2×10^6 endotoxin-stimulated human peripheral blood mononuclear cells (PBMC). PBMC are stimulated for 24 hours with 1% (v/v) human serum plus 10 ng/mL E.coli LPS. This product has been assayed by Immunohistochemistry. A dilution range of 1:200 is suggested for this immunoassay. Either paraffin fixation or cryofixation can be used for Immunohistochemistry using a dilution of 1:200 for staining of intracellular IL-1a . This product has been assayed by ELISA against IL-1a using HRP Conjugated Anti-Rabbit IgG [H&L] (Goat) and ABTS as a substrate for 30 minutes at room temperature. A working dilution range of 1:200 to 1:1,000 is suggested for this product. For use in ELISA formats, this antibody is best used as the second antibody in combination with a monoclonal antibody as a capture antibody. Assay Dilutions: ELISA: 1/1,000-1/5,000. Western Blot: 1/500-1/2,000.
Reactivity:	Human, Monkey
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The whole rabbit serum used to produce this IgG fraction antibody was prepared by repeated immunizations with recombinant human IL-1a produced in E.coli.



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Specificity:	<p>This antibody is primarily directed against the 17,000 MW human IL-1a and is useful in determining its presence in various assays. In general, this antibody also detects primate IL-1a in the same formats using similar dilutions. The antiserum does not recognize human IL-1b or Mouse or Rabbit IL-1a. In ELISA formats and other immunoreactive assays, this antibody will recognize both the mature 17,000 MW IL-1a as well as the 31,000 MW IL-1a precursor in either non-denatured (native) or denatured samples. Unlike the IL-1b precursor, the native precursor of IL-1a is recognized by the antibody produced to the 17,000 MW form. The 31,000 precursor of IL-1a is biologically active and is found primarily intracellularly. The precursor of IL-1a, unlike that of IL-1b, is biologically active when applied to cells and is thought to have a role as a functional molecule intracellularly and can be found constitutively expressed in various cell. This antibody is also useful for Neutralization of human and primate IL-1a activity in bioassays. It does not neutralize the biological activity IL-1b. It does not neutralize the biological activity of mouse, rat or rabbit IL-1a. It will neutralize primate IL-1a. For Neutralization, it is recommended to incubate the sample with a 1:100 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.</p>
Formulation:	<p>0.02M Potassium Phosphate, 0.15M Sodium Chloride; pH 7.2 containing 0.01% (w/v) Sodium Azide as preservative. State: Purified State: Liquid (sterile filtered) purified Ig fraction.</p>
Concentration:	lot specific
Purification:	DEAE fractionation.
Conjugation:	Unconjugated
Storage:	<p>Store the antibody (undiluted) at 2-8°C for one month or (in aliquots) at -20°C for longer. Dilute only prior to immediate use. Avoid cycles of freezing and thawing.</p>
Stability:	Shelf life: One year from despatch.
Gene Name:	interleukin 1 alpha
Database Link:	Entrez Gene 3552 Human P01583

Background:

Interleukins (ILs) are a large group of cytokines that are produced mainly by leukocytes, although some are produced by certain phagocytes and auxiliary cells. Each IL acts on a specific, limited group of cells through a receptor specific for that IL. Interleukin 1 (IL1), originally known as lymphocyte activating factor (LAF), activates T cells and lymphocytes, which then proliferate and secrete interleukin 2. IL1 is primarily released from stimulated macrophages and monocytes, but also is released from several other cell types and is thought to play a key role in inflammatory and immune responses. The two closely related agents, interleukin 1 alpha (IL1 alpha) and interleukin 1 beta (IL1 beta) bind to the same cell surface receptor, elicit nearly identical biological responses and share 25% homology in their amino acid sequence.

Synonyms:

IL-1 alpha, IL1F1, IL1A, Hematopoietin-1

Note:

Endotoxin Content: < 10 pg/μl by LAL method.