

Purified anti-mouse / rat IL-1 β Antibody

Catalog# / Size	503501 / 50 μ g 503502 / 500 μ g
Clone	B122
Regulatory Status	RUO
Other Names	Interleukin-1 β , Catabolin, Hematopoietin-1 (H1), IFN β -inducing factor, Interleukin- β , Osteoclast activating factor (OAF)
Isotype	Armenian Hamster IgG
Description	IL-1 refers to two proteins, IL-1 α and IL-1 β which are the products of distinct genes, but which are recognized by the same cell surface receptors. IL-1 β is a potent immuno-modulator which mediates a wide range of immune and inflammatory responses including the activation of B and T cells. The B122 antibody reacts with the precursor and mature secreted forms of mouse IL-1 β . This antibody also recognizes rat IL-1 β . The B122 antibody can neutralize the bioactivity of natural or recombinant IL-1 β .

Product Details

Verified Reactivity	Mouse, Rat
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	<i>E. coli</i> -expressed, recombinant mouse IL-1 β
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	ELISA Capture - Quality tested ELISPOT Capture, Depletion, IHC-F, IP, Neut, WB - Reported in the literature, not verified in house
Recommended Usage	Each lot of this antibody is quality control tested by ELISA assay . For ELISA capture applications, a concentration range of 2.0 - 6.0 μ g/ml is recommended. To obtain a linear standard curve, serial dilutions of IL-1 β recombinant protein ranging from 2000 to 30 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	ELISA or ELISPOT Capture³: The purified B122 antibody is useful as the capture antibody in a mouse IL-1 β sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated Poly5158 antibody (Cat. No. 515801) as the detecting antibody. The LEAF™ purified antibody is suggested for ELISPOT capture. Certain formats of clone B122 have been reported for <i>in vitro</i> neutralization of IL-1 β bioactivity ¹ , <i>in vivo</i> cytokine depletion ⁵ , immunohistochemical staining of frozen sections ⁶ , Western blotting ⁷ , and the study of endotoxin shock ⁸ .
Application References	1. Hogquist K, <i>et al.</i> 1991. <i>J. Immunol.</i> 146:1534. 2. Williams RO, <i>et al.</i> 2000. <i>J. Immunol.</i> 165:7240. (Neut) 3. Brewer J, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:4000. (ELISA and ELISPOT Capture) 4. Rogers HW, <i>et al.</i> 1992. <i>Proc. Natl. Acad. Sci. USA</i> 89:1011. 5. Cantwell AM, <i>et al.</i> 2010. <i>BMC Immunol.</i> 11:29. (Depletion) 6. Dube PH, <i>et al.</i> 2001. <i>Proc. Natl. Acad. Sci. USA</i> 98:10880. (IHC) 7. Babelova A, <i>et al.</i> 2009. <i>J. Biol. Chem.</i> 284:24035. (WB) 8. Lu JY, <i>et al.</i> 2006. <i>Genes Dev.</i> 20:3174. (Neut) PubMed
(PubMed link indicates BioLegend citation)	

Product Citations

1. Zou B, *et al.* 2017. PLoS Pathogens. 13(6):e1006436. [PubMed](#)
2. Zhang D, *et al.* 2020. Signal Transduct Target Ther. 5:24. [PubMed](#)
3. Nie S, *et al.* 2019. Cancer Manag Res. 11:10257. [PubMed](#)
4. Pereira RM, *et al.* 2019. J Endocrinol. 241:59. [PubMed](#)
5. den Hartigh AB, *et al.* 2018. Curr Protoc Immunol. :e52. [PubMed](#)
6. Dantis Pereira de Campos T, *et al.* 2020. Int J Mol Sci. 21:00. [PubMed](#)
7. Zhang D, *et al.* 2020. Signal Transduct Target Ther. 5:24. [PubMed](#)
8. Pahari S, *et al.* 2020. Autophagy. 1.375694444. [PubMed](#)

RRID AB_315286 (BioLegend Cat. No. 503501)
 AB_315287 (BioLegend Cat. No. 503502)

Antigen Details

Structure	Cytokine; 17.5 kD (Mammalian)
Bioactivity	Stimulates T cells, B cells, proliferation/activation of NK cells, fibroblasts, thymocytes, glioblastoma cells, astroglia, microglia; monocyte transition from IL-1 β to IL-1 α when matured to macrophages
Cell Sources	Monocytes, tissue macrophages, Langerhan cells, dendritic cells, T lymphocytes, B lymphocytes, natural killer (NK) cells, large granular lymphocytes (LGL), vascular endothelium, smooth muscle, fibroblasts, thymic epithelia, astrocytes, microglia, glioma,
Cell Targets	B cells, T cells, monocytes
Receptors	Type I IL-1R (CDw121a), Type II IL-1R (CDw121b)
Biology Area	Immunology, Innate Immunity
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Fitzgerald K, <i>et al.</i> Eds. 2001. The Cytokine FactsBook. Academic Press San Diego. 2. Bomford R, <i>et al.</i> Eds. 1989. <i>Interleukin-1 inflammation and disease</i>. Elsevier New York. 3. Brazel D, <i>et al.</i> 1991. <i>Biotechnol. Ther.</i> 2:241. 4. Dinarello C. 1996. <i>Blood</i> 87:2095.
Regulation	Upregulated by TNF- α , IFN- α , IFN- β , IFN- γ , bacterial endotoxins, viruses, mitogens, antigens; downregulated by IL-6, lipoproteins, lipids, and α 2-macroglobulin
Gene ID	16176

Related Protocols

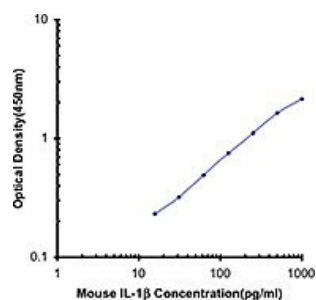
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Other Formats

Purified anti-mouse / rat IL-1 β , Biotin anti-mouse / rat IL-1 β , Ultra-LEAF™ Purified anti-mouse / rat IL-1 β , GoinVivo™ Purified anti-mouse/rat IL-1 β

Product Data



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