Diaclone
IMMUNOLOGY PRODUCTS & SERVICES

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Anti-Human IL-1β Azide Free

PRODUCT SPECIFICATIONS

Catalogue N°	855.010.000 - 200µg / 200µl 855.010.005 - 500µg / 500µl
Target species	Human
Specificity	Recognises both natural (pro and mature) and recombinant human IL-1b
Clone	B-A15
Application	ELISA Flow Cytometry Functional assay ELISpot
Origin	Recombinant antibody from the original clone
Immunisation	Recombinant human IL-1b
Quantity	200µg or 500µg (Discovery Size also available please enquire)
Isotype	Mouse IgG1 Kappa light chain
Format	Phosphate-buffered saline. Sterile-filtered through 0.22 µm. Carrier and preservative free
Storage	Stable at +2-8°C for 12 months. DO NOT FREEZE.
Biological Activity	Inhibits IL-1β induced proliferation on D10S murine cell line
Synonym	IL-1b IL-1beta

Discover Diaclone

With over 30 years experience and extensive expertise, we are commited to providing excellence in Monoclonal Antibody and Immunoassay development.

The expanding range of Diaclone Immunology products is specifically designed to advance research applications.

Our experience and expertise coupled to the diversity and quality of our product range makes Diaclone a clear choice to :

Fast Track Your Research

Diaclone products

- Monoclonal Antibodies
- ELISA
- ELISpot
- Multiplex

Diaclone SAS

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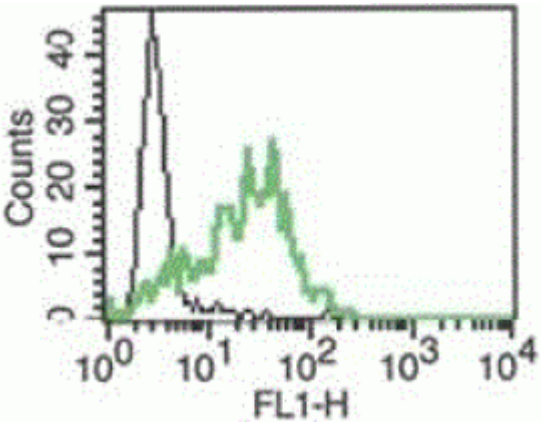
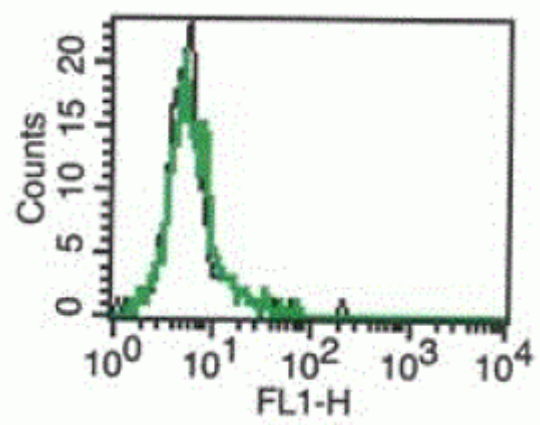


The graph on the left represents activated monocytes marked with B-A15.



The graph on the right shows B-A15 with non-activated monocytes. In the two cases, the dotted line represents the IgG1 isotype control.

REFERENCES

Chéne L. et al., J. Virol., 1999; 73(3): 2064 - 2073 - Pubmed link

Ikoma, Y. et al., Mol Hum Reprod.,2003; 9(2): 103-10. - Pubmed link

BACKGROUND

Interleukin-1 Beta (IL-1b) is a member of the interleukin-1 family. This family consists of three structures related polypeptides. The first two are IL-1a and IL-1b, each of which has a broad spectrum of both beneficial and harmful biologic actions, and the third is IL-1-receptor antagonist, which inhibits the activities of interleukin-1.

IL-1 a and b present approximately 25% homology at the amino acid level, but the difference is in their tri dimensional structure. Two distinct receptor types have been isolated, that bind both forms.IL-1b are synthesized as a larger precursor, with a molecular weight 31kda. The molecular weight of the mature form is 17.5kDa.Unlike IL1a, the IL-1b precursor show a little or no biological activity in comparison to the mature form.

IL-1 is primarily an inflammatory cytokine. It belongs to a groups of cytokines with overlapping biologic properties (TNFa and IL-6). IL-1, TNF and IL-6 share the ability to stimulate T and B lymphocytes, increase cell proliferation, and initiate or suppress gene expression for several proteins. It exerts their effects by binding to specific receptors.

IL-1 (a and b) have similar biological properties, among them, the ability to induce fever, sleep, anorexia and hypotension. IL-1 stimulates the release of pituitary hormones, increases the synthesis of collagenases, resulting in the destruction of cartilage, and stimulates the production of prostaglandins, leading to decrease in the pain threshold. In addition IL-1 has some host-defense properties. However, whereas IL-1b is a secreted cytokine, IL-1a is predominantly a cell-associated cytokine.

IL-1 has also been implicated in the destruction of beta cells of the islets of Langerhans, the growth of myelogenous leukaemia cells, and the development of atherosclerotic plaques. It is described in several diseases : sepsis syndrome, rheumatoid arthritis, inflammatory Bowel disease, acute and chronic myelogenous leukaemia, insulino-dependant diabetes mellitus, artherosclerosis.