

IL-1B (PN0164) Nb-FC recombinant antibody

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| Catalog No : | YA0609 |
| Reactivity : | Human |
| Applications : | ELISA |
| Target : | IL-1B |
| Gene Name : | IL1B IL1F2 |
| Protein Name : | Interleukin-1 beta (IL-1 beta) (Catabolin) |
| Human Gene Id : | 3553 |
| Human Swiss Prot No : | P01584 |
| Immunogen : | Purified recombinant Human IL-1B |
| Specificity : | This recombinant monoclonal antibody can detects endogenous levels of IL-1B protein. |
| Formulation : | Phosphate-buffered solution |
| Source : | Camel, chimeric fusion of Nanobody (VHH) and mouse IgG1 Fc domain , recombinantly produced from 293F cell |
| Dilution : | ELISA 1:5000-100000 |
| Purification : | Recombinant Expression and Affinity purified |
| Concentration : | Please check the information on the tube |
| Storage Stability : | -15°C to -25°C/1 year(Avoid freeze / thaw cycles) |
| Background : | IL-1 β in humans and mice does not encode a typical signal peptide and, as a result, newly synthesized pro-IL-1 β accumulates within the cytoplasm of activated monocytes and macrophages . Conversion of the inactive pro-IL-1 β to its mature form requires the proteolytic action of IL-1 β -converting enzyme (ICE), also termed |

caspase-1 . Secretion of mature IL-1 β from LPS-activated monocytes/macrophages is not a constitutive process. These cells must encounter a secondary stimulus that specifically activates the posttranslational processing events . Moreover, owing to its pro-inflammatory nature, IL-1 β is regarded as a tumor-promoting cytokine. In fact, enhanced tumor metastasis and angiogenesis has been observed under the influence of IL-1 β . IL-1 β is able to facilitate tumor progression in murine models of lung cancer. In addition, upregulation of metastasis and tumor angiogenesis by IL-1 β has been associated with increased activity of matrix metalloproteinases and expression of the pro-angiogenic molecule hepatocyte growth factor .

Function :

Interleukin (IL)-1 β is a cytokine with a key role in the pathophysiology of local and systemic inflammation. IL-1 β induces cytokine, chemokine, proinflammatory molecule secretion, and adhesion molecule expression in diverse cells.

Subcellular Location :

Cytoplasm, cytosol . Secreted . Lysosome . Secreted, extracellular exosome . The precursor is cytosolic (PubMed:15192144). In response to inflammasome-activating signals, such as ATP for NLRP3 inflammasome or bacterial flagellin for NLRC4 inflammasome, cleaved and secreted (PubMed:24201029, PubMed:33377178, PubMed:33883744). Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744). In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1 during maturation (PubMed:33883744). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10 (PubMed:32272059) . .

Expression :

Expressed in activated monocytes/macrophages (at protein level).

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