

Recombinant Rat IL-1A/ IL-1 α Protein

Catalog No. PKSR030449

Note: Centrifuge before opening to ensure complete recovery of vial contents.

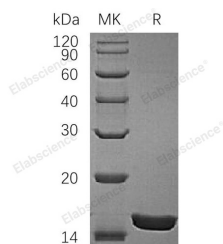
Description

Synonyms	Interleukin-1 alpha;IL-1 alpha;Il1a
Species	Rat
Expression Host	E.coli
Sequence	Ser115-Ser270
Accession	P16598
Calculated Molecular Weight	17.9 kDa
Observed molecular weight	16 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Interleukin 1 (IL-1) is a name that designates two proteins, IL-1 α and IL-1 β , which are the products of distinct genes, but which show approximately 25% amino acid (aa) sequence identity and which recognize the same cell surface receptors.

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IL-1 α and IL-1 β are both synthesized as 31 kDa precursors that are subsequently cleaved into proteins with molecular weights of approximately 17,000 Da. Neither precursor contains a typical hydrophobic signal peptide sequence and most of the precursor form of IL-1 α remains in the cytosol of cells, although there is evidence for a membranebound form of the precursor form of IL-1 α . Although IL-1 production is generally considered to be a consequence of inflammation, evidence suggests that IL-1 is also temporally upregulated during bone formation and the menstrual cycle and can be induced in response to nervous system stimulation. In response to classic stimuli produced by inflammatory agents, infections or microbial endotoxins, a dramatic increase in the production of IL-1 by macrophages and various other cells is seen.