Datasheet

Cat. No. PM2002

Recombinant Mouse IL-1a, Tag Free

Information

Accession #	P01582
Alternate Names	IL1 alpha; IL-1 alpha; IL1; IL1A; IL-1A; IL1-ALPHA; IL1F1; IL-1F1; IL1F1hematopoietin-1
Source	Human embryonic kidney cell, HEK293-derived mouse IL-1a protein
Protein sequence	Ser113-Ala271
M.Wt	18.0 kDa
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 3 years from date of receipt, -20 to -70°C as supplied.
Concentration	0. 2 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	The EC50 for this effect is 0.1-2 pg/mL. Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	> 95%, determined by SDS-PAGE.
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.

Description

IL-1 alpha is a member of the interleukin 1 cytokine family. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation, and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. Cytokines can be classified into two groups: pro- and anti-inflammatory. Pro-inflammatory cytokines, including IFNgamma, IL-1, IL-6, and TNF-alpha, are predominantly derived from the innate immune cells and Th1 cells. Anti-inflammatory cytokines, including IL-10, IL-4, IL-13, and IL-5, are synthesized from Th2 immune cells. IL-1 alpha is a

pleiotropic cytokine involved in various immune responses, inflammatory processes, and hematopoiesis. It is produced by monocytes and macrophages as a proprotein, which is proteolytically processed and released in response to cell injury, and thus induces apoptosis. IL-1 alpha stimulates thymocyte proliferation by inducing IL-2 release, B-cell maturation and proliferation, and fibroblast growth factor activity.

Reference

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[2]. March CJ, et al. (1985) Nature. 315(6021):641-7.

[3]. Bankers-Fulbright JL, et al. (1996) Life Sci. 59(2):61-83.

[4]. Dinarello CA, et al. (1997) Semin Oncol. 24 (3 Suppl 9):S9-81-S9-93.

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