A Reliable Research Partner in Life Science and Medicine

## Recombinant Mouse IL1A Protein(GST Tag)

Catalog Number: PDEM100321

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

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**Species** Mouse

Source E.coli-derived Mouse IL1A protein Ser115-Ser270, with an N-terminal GST

 Mol\_Mass
 43.0 kDa

 Accession
 P01582

**Bio-activity** Not validated for activity

#### **Properties**

**Purity** > 95% as determined by reducing SDS-PAGE.

**Endotoxin** < 10 EU/mg 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

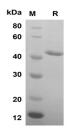
Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5%

Mannitol.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of

0.5 mg/mL. Concentration is measured by UV-Vis

#### Data



SDS-PAGE analysis of Mouse IL1A proteins, 2µg/lane of Recombinant Mouse IL1A proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 45 kDa

#### Background

# Elabscience®

### Elabscience Biotechnology Co., Ltd.

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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.