

Recombinant human IL-4I1 protein

Catalog Number: ATGP4099

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

22-567aa

UniProt No.

Q96RQ9

NCBI Accession No.

NP_690863

Alternative Names

Interleukin 4 induced 1, FIG1, LAAO, LAO, L-amino-acid oxidase isoform 1, L-amino-acid oxidase, IL4-induced protein 1, Fig-1, IL4I1, hIL4I1

PRODUCT SPECIFICATION

Molecular Weight

61.8kDa (555aa)

Concentration

0.25mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid in. 20mM MES (pH5.5) containing 0.1M NaCl, 40% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 300 pmol/min/ug, and defined as the amount of enzyme that oxidize 3-phenylpyruvate at pH 7.0 at 25C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

IL-4I1, also known as FIG1, is a secreted L-amino-acid oxidase that acts as a key immunoregulator. It is highly expressed in primary metastinal B-cell lymphomas. This protein acts as a negative regulaotr of anti-tumor immunity by mediating Trp degradation via ans indole pyruvate pathway that activates the transcription factor AHR. IL-4I1-mediated Trp catabolism generates I3P, giving rise to indole metabolites and kynurenic acid, which act as ligands for AHR, a ligand-activated transcription factor that plays important roles in immunity and cancer. IL-4I1 also regulates M2 macrophage polarization by inhibiting T-cell activation and has antibacterial properties by inhibiting growth of Gram negative and Gram positive bacteria through the production of NH₄⁺ and H₂O₂. Recombinant human IL-4I1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

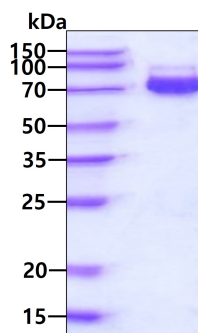
<ADL>QDWKAER SQDPFEKCMQ DPDYEQLLKV VTWGLNRTLK PQRVIVVGAG VAGLVAAKVL SDAGHKVTIL
EADNRIGGRI FTYRDQNTGW IGELGAMRMP SSHRILHKLC QGLGLNLTKF TQYDKNTWTE VHEVKLRNYV VEKVPEKLG
ALRPQEKGHS PEDIYQMALN QALKDLKALG CRKAMKKFER HTLLEYLLGE GNLSRPAVQL LGDVMSEDGF FYLSFAEALR
AHSCLSDRLQ YSRIVGGWDL LPRALLSSLS GLVLLNAPVV AMTQGP HDVH VQIETSPPAR NLKVLKADV V LLTASGPAVK
RITFSPPLPR HMQEALRRLH YVPATKVFLS FRRPFWREEH IEGGHSNTDR PSRMIFYPPP REGALLASY TWS DAAAAFA
GLSREEALRL ALDDVAALHG PVVRQLWDGT GVKRWAEDQ HSQGGFVVQP PALWQTEKDD WTPYGRIFY
AGEHTAYPHG WVETAVKSAL RAAIKINSRK GPASDTASPE GHASDMEGQG HVHGVASSPS HDLAKEEGSH PPVQGQLSLQ
NTTHTRTSH<H HHHHHH>

General References

- Cousin C., et al, (2015) Eur J Immunol. 45:1772-1782.
- Sadik A., et al, (2020) Cell. 182:1525-1270.
- Mulder K., et al, (2021) Immunity. 54:1883-1900.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain