

Human LRAP / ERAP2 Protein (His Tag)

Catalog Number: 10734-H07H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

FLJ23633; FLJ23701; FLJ23807; L-RAP; LRAP; LRAP.ERAP2

Protein Construction:

A DNA sequence encoding the luminal domain of human ERAP2 (NP_071745.1) (Ala 56-Thr 960) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave the fluorogenic peptide substrate, Arg-7-amido-4-methylcoumarin (Arg-AMC). The specific activity is >50 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Leu 24

Molecular Mass:

The recombinant human ERAP2 consists of 921 amino acids and predicts a molecular mass of 106 kDa. In SDS-PAGE under reducing conditions, it migrates with the apparent molecular mass of 115-125 kDa due to glycosylation.

Formulation:

Lyophilized from sterile 12.5mM Tris, 75mM NaCl, pH 7.5, 50% glycerol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

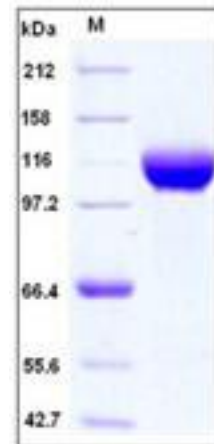
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Leukocyte-derived arginine aminopeptidase (LRAP), also known as endoplasmic reticulum-aminopeptidase 2 (ERAP2), is the second identified aminopeptidase localized in the lumenal side of endoplasmic reticulum (ER) processing antigenic peptides presented to major histocompatibility complex (MHC) class I molecules. It is a 960-amino acid protein with significant homology to placental leucine aminopeptidase and adipocyte-derived leucine aminopeptidase. LRAP preferentially hydrolyzes the basic residues Arg and Lys, and contains the HEXXH(X)18E zinc-binding motif, which is the characteristic of the M1 family of zinc metallopeptidases which also includes PILS/ARTS1/ERAP1 and LNPEP/PLAP. Induced by interferon-gamma, LRAP is able to trim various MHC class I antigenic peptide precursors.

References

1. Tanioka T., *et al.*, (2003), Human leukocyte-derived arginine aminopeptidase. The third member of the oxytocinase subfamily of aminopeptidases. *J. Biol. Chem.* 278:32275-32283. 2. Tanioka T., *et al.*, (2005), Regulation of the human leukocyte-derived arginine aminopeptidase/endoplasmic reticulum-aminopeptidase 2 gene by interferon-gamma. *FEBS J.* 272:916-928. 3. Liu T., *et al.*, (2005), Human plasma N-glycoproteome analysis by immunoaffinity subtraction, hydrazide chemistry, and mass spectrometry. *J. Proteome Res.* 4:2070-2080.

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