Human AMBP / Alpha 1 microglobulin Protein (Fc Tag)

Catalog Number: 13141-H05H1

General Information

Gene Name Synonym:

A1M; EDC1; HCP; HI30; IATIL; ITI; ITIL; ITILC; UTI

Protein Construction:

A DNA sequence encoding the alpha-1-microglobulin of human AMBP (NP_001624.1) (Met1-Val203) was expressed with the Fc region of mouse IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

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

Predicted N terminal: Gly 20

Molecular Mass:

The recombinant alpha-1-microglobulin of human AMBP consists 418 amino acids and predicts a molecular mass of 47.2 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

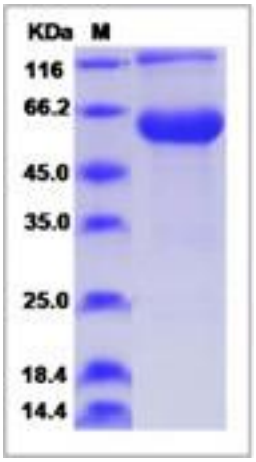
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The AMBP [A1M (alpha1-microglobulin)/bikunin precursor] gene encodes two plasma glycoproteins: A1M, an immunosuppressive lipocalin, and bikunin, a member of plasma serine proteinase inhibitor family with prototypical Kunitz-type domain. Although previously believed to be constitutively expressed exclusively in liver, the present study demonstrates the induction of this gene by oxalate in porcine proximal tubular LLC-PK1 cells and rat kidney. In liver, the precursor protein is cleaved in the Golgi network by a furin-like enzyme to release constituent proteins, which undergo glycosylation before their export from the cell. In the renal tubular cells, A1M and bikunin co-precipitate, indicating lack of cleavage of the precursor protein. As the expression of the AMBP gene is regulated by A1M-specific cis elements and transcription factors, A1M protein was studied as a representative of AMBP gene expression in renal cells. The alpha(1)-microglobulin/bikunin precursor (AMBP) gene, and its two protein products were studied in mouse embryos of 8.5-15.5 days of embryonic development by in situ hybridization and immunohistochemistry. AMBP mRNA is strongly transcribed in liver parenchyma, pancreas, and intestine epithelium. Sites of weaker expression are the vessels of the umbilical cord, the developing vertebral bodies, and kidney. The alpha(1)-microglobulin and bikunin proteins are accordingly present in developing hepatocytes, pancreas, kidney, and gut. However, additional sites of protein distribution were found that do not correlate to mRNA localization: alpha(1)-microglobulin was found in myocytes and bikunin in cardiac muscle, nervous system microvasculature, and connective tissue