Human FAM3B Protein (Fc Tag)

Catalog Number: **11338-H02H**

General Information

Gene Name Synonym:

42056; C21orf11; C21orf76; ORF9; PANDER; PRED44

Protein Construction:

A DNA sequence encoding the human FAM3B isoform B (P58499-1) (Met 1-Ser 235) was fused with the Fc region of human 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 of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Glu 30

Molecular Mass:

The secreted recombinant human FAM3B/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 447 amino acids and has a predicted molecular mass of 50 kDa. The apparent molecular mass of rhFAM3B/Fc monomer is approximately 57 kDa in SDS-PAGE under reducing conditions.

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

Storage:

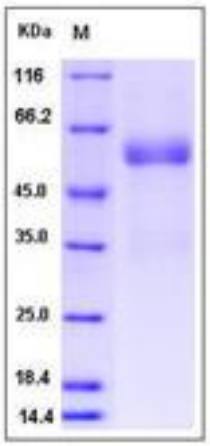
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Pancreatic derived factor, also known as FAM3B, is an islet-specific secreted cytokine specifically expressed at high levels in the islets of Langerhans of the endocrine pancreas. FAM3B protein is present in alpha- and beta- cells of pancreatic islets, insulin-secreting beta-TC3 cells, and glucagon-secreting alpha-TC cells. FAM3B causes apoptosis of beta-cells as assessed by electron microscopy, annexin Ⅴ fluorescent staining, and flow-cytometric terminal deoxynucleotidyl transferase-mediated dUTP nick-end labeling assay. FAM3B activated caspase-3 while not affect cytosolic Ca2+ levels or nitric oxide levels. Hense, FAM3B may have a role in the process of pancreatic?-cell apoptosis of primary islet and cell lines. FAM3B secretion is regulated by glucose and other insulin secretagogues. This islet-specific secreted cytokine is secreted from both pancreatic alpha- and beta- cells. Glucose stimulates FAM3B secretion dose dependently in beta-cell lines and primary islets but not in alpha-cells. It is likely cosecreted with insulin via the same regulatory mechanisms and structure and conformation is vital for FAM3B secretion.

References

1.Cao X, *et al.* (2003) Pancreatic-derived factor (FAM3B), a novel islet cytokine, induces apoptosis of insulin-secreting beta-cells. Diabetes. 52(9): 2296-303. 2.Yang J, *et al.* (2005) Mechanisms of glucose-induced secretion of pancreatic-derived factor (PANDER or FAM3B) in pancreatic beta-cells. Diabetes. 54(11): 3217-28. 3.Xu W, *et al.* (2005) Interferon-gamma-induced regulation of the pancreatic derived cytokine FAM3B in islets and insulin-secreting betaTC3 cells. Mol Cell Endocrinol. 240(1-2): 74-81.