Human PTX3 / Pentraxin 3 / TSG-14 Protein (His Tag)

Catalog Number: **12082-H08H**

General Information

Gene Name Synonym:

PTX3; TNFAIP5; TSG-14

Protein Construction:

A DNA sequence encoding the human PTX3 (NP_002843.2) (Met 1-Ser 381) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 97 % 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 18

Molecular Mass:

The secreted recombinant human PTX3 consists of 375 amino acids and has a predicted molecular mass of 41.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of the protein is approximately 43-47 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

Storage:

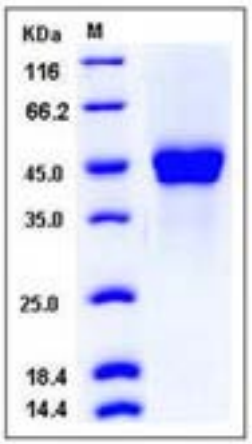
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Pentraxin-related protein PTX3, also known as Tumor necrosis factor alpha-induced protein 5, Tumor necrosis factor-inducible gene 14 protein, TSG-14, PTX3 and TNFAIP5, is a secreted protein which contains onepentaxin domain. PTX3 plays a role in the regulation of innate resistance to pathogens, inflammatory reactions, possibly clearance of self-components and female fertility. Pentraxins are a family of evolutionarily conserved multifunctional pattern-recognition proteins characterized by a cyclic multimeric structure. Based on the primary structure of the subunit, the pentraxins are divided into two groups: short pentraxins and long pentraxins. C-reactive protein (CRP) and serum amyloid P-component (SAP) are the two short pentraxins. The prototype protein of the long pentraxin group is pentraxin 3 (PTX3). CRP and SAP are produced primarily in the liver in response to IL-6, while PTX3 is produced by a variety of tissues and cells and in particular by innate immunity cells in response to proinflammatory signals and Toll-like receptor (TLR) engagement. PTX3 is essential in female fertility by acting as a nodal point for the assembly of the cumulus oophorus hyaluronan-rich extracellular matrix. PTX3 interacts with several ligands, including growth factors, extracellular matrix components and selected pathogens, playing a role in complement activation and facilitating pathogen recognition by phagocytes, acting as a predecessor of antibodies. PTX3 may also contribute to the pathogenesis of atherosclerosis.

References

1.Rolph,M.S. et al., 2002, Arterioscler Thromb Vasc Biol. 22 (5):e10-4. 2.Mantovani A., et al., 2003, Vaccine. 21:S43-S47. 3.Luchetti,M.M. et al., 2004, Clin Exp Rheumatol. 22 (3):S66-72.