

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

**Catalog Number:** PDMH100346

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

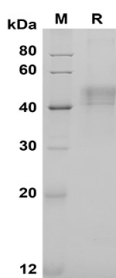
### Description

<b>Species</b>	Human
<b>Source</b>	Mammalian-derived Human Pentraxin 3/TSG-14 proteins Glu18-Ser381, with an C-terminal His
<b>Calculated MW</b>	39.9 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	P26022
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human Pentraxin 3/TSG-14 proteins,  
2 µg/lane of Recombinant Human Pentraxin 3/TSG-14  
proteins was resolved with SDS-PAGE under reducing  
conditions, showing bands at 45 KD

### Background

### For Research Use Only

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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 that contains one pentaxin 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.