

Human PTMA Protein (GST Tag)

Catalog Number: 11407-H09E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

TMSA; Thym

Protein Construction:

A DNA sequence encoding the human PTMA (P06454-1) (Ser 2-Asp 111) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant human PTMA/GST chimera consists of 341 amino acids and has a predicted molecular mass of 39 kDa. It migrates as an approximately 45 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.5

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:

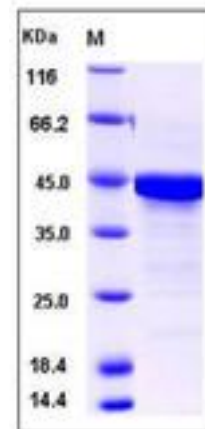
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PTMA (prothymosin, alpha, N-GST chimera) is a small, 12.4 kDa protein. It is a 109-111 amino acid long polypeptide as the precursor of thymosin a1. Thymosins are named because they were originally isolated from the thymus. But now in many other tissues, thymosins also can be detected. Thymosins have diverse biological activities, and two in particular, thymosins a1 and _4, have potentially important uses in medicine, some of which have already progressed from the laboratory to the clinic. In general, PTMA is associated with cellular proliferation and carcinogenesis (Eschenfeldt et al., 1986), cellular and viral transcription (Cotter et al., 2000), protection against apoptosis and chromatin remodelling (Karetsou et al., 1998). PTMA may have a dual role both intracellularly and extracellularly. In relation to diseases, thymosins have been categorized as biological response modifiers. Thymosin a1 is derived from PTMA. For animals that lack thymus glands, thymosin a1 is responsible for the activity of that preparation in restoring immune function.

References

1. Manrow RE, et al. (1992) The human prothymosin alpha gene family contains several processed pseudogenes lacking deleterious lesions. *Genomics*. 13(2):319-31.
2. Wara DW, et al. (1975) Thymosin activity in patients with cellular immunodeficiency. *N Engl J Med*. 292(2):70-4.
3. Garaci E, et al. (2007) Thymosin alpha 1: from bench to bedside. *Ann N Y Acad Sci*. 1112:225-34.

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