Human TROP2 / TACSTD2 Protein (His & Fc Tag)

Catalog Number: **10428-H03H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

EGP-1; EGP1; GA733-1; GA7331; GP50; M1S1; TACD2; TROP-2; TROP2; C80403; EGP-1; GA733-1; Ly97; TROP2

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Thr 274) of human TROP2 (NP_002344.2) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of U937 human histiocytic lymphoma cells. When cells are added to coated plates (10μg/ml,100μl/well), approximately 55%-70% will adhere specifically.

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: His 27

Molecular Mass:

The recombinant human TROP2/Fc is a disulfide-linked homodimer. The reduced monomer consists of 495 amino acids and has a predicted molecular mass of 55.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhTROP2/Fc monomer is approximately 65-75 kDa due to glycosylation.

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:

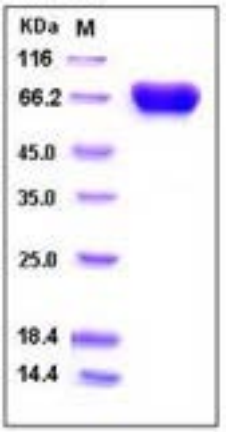
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

TROP-2, also referred to as tumor associated calcium signal transducer 2 (TACSTD2), GA733-1 or M1S1, is a cell surface glycoprotein highly expressed in a wide variety of epithelial cancers. In contrast, there is little or no expression of Trop-2 in adult somatic tissue. Because it is a cell surface protein that is selectively expressed in tumor cells, Trop-2 is a potential therapeutic target. The cytoplasmic tail of Trop-2 possesses potential serine and tyrosine phosphorylation sites and a phosphatidyl-inositol binding consensus sequence. Trop-2 transduces an intracellular calcium signal, are consistent with the hypothesis that it acts as a cell surface receptor and support a search for a physiological ligand. TROP2 encoding by an intronless gene was originally defined by the monoclonal antibody GA733, and is a member of a family of at least two type I membrane proteins. The other known member is GA733-2, also called EpCAM and TROP1. It has been suggested by studies that the GA733-1 gene was formed by the retroposition of the GA733-2 gene via an mRNA intermediate.

References

1. Ripani E, et al. (1998) Human Trop-2 is a tumor-associated calcium signal transducer. Int J Cancer. 76(5): 671-6.
2. Wang J, et al. (2008) Identification of Trop-2 as an oncogene and an attractive therapeutic target in colon cancers. Mol Cancer Ther. 7(2): 280-5.