

Human PRL-2 / PTP4A2 Protein (GST Tag)

Catalog Number: 13097-H09E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

HH13; HH7-2; HMT; HNMT-S1; HNMT-S2; HU-PP-1; OV-1; PRL-2; PRL2; ptp-IV1a; ptp-IV1b; PTP4A; PTPCAAX2; Prl-2

Protein Construction:

A DNA sequence encoding the human PTP4A2 isoform 1 (Q12974-1) (Asn 2-Gln 167) 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 PTP4A2/GST chimera consists of 397 amino acids and has a predicted molecular mass of 45.9 kDa. It migrates as an approximately 45 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 0.15M NaCl, 1mM GSH, pH 7.3

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:

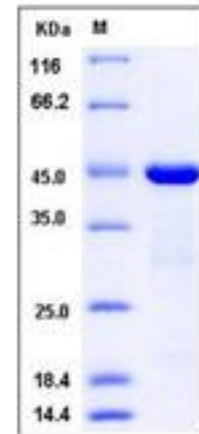
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

PRL-2 (Protein-tyrosine phosphatase of regenerating liver 2), also known as PTP4A2 (Protein tyrosine phosphatase type IVA, member 2), is a member of PTP family and has an important function in controlling cell growth. PRL-2 phosphatases may be multifunctional enzymes with diverse roles in a variety of tissue and cell types. The phosphatase of regenerating liver (PRL) family, comprising PRL-1, PRL-2 and PRL-3, is a group of prenylated phosphatases that are candidate cancer biomarkers and therapeutic targets. PRL-1, PRL-2, and PRL-3 represent a novel class of protein-tyrosine phosphatase with a C-terminal prenylation motif. They are three closely related intracellular enzymes that possess the PTP active site signature sequence CX 5R. The PRL-2 mRNA is elevated in primary breast tumors relative to matched normal tissue, and also dramatically elevated in metastatic lymph nodes compared with primary tumors. PRL-2 plays a role in breast cancer progression. PRL-2 is a pathogenic molecule in hematopoietic malignancies and suggest its potential as a novel therapeutic target.

References

1. Akiyama S, *et al.* (2010) PRL-2 increases Epo and IL-3 responses in hematopoietic cells. *Blood Cells Mol Dis.* 44(4): 209-14.
2. Hardy S, *et al.* (2010) Overexpression of the protein tyrosine phosphatase PRL-2 correlates with breast tumor formation and progression. *Cancer Res.* 70(21): 8959-67.
3. Yuan L, *et al.* (2007) Differential expression and functional constraint of PRL-2 in hibernating bat. *Comp Biochem Physiol B Biochem Mol Biol.* 148(4): 375-81.

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