Human RRM1 Protein (His & GST Tag)

Catalog Number: **14316-H20B**

General Information

Gene Name Synonym:

R1; RIR1; RR1

Protein Construction:

A DNA sequence encoding the human RRM1 (P23921) (Met1-Ser792) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % 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: Met

Molecular Mass:

The recombinant human RRM1/GST chimera consists of 1029 amino acids and has a calculated molecular mass of 117.9 kDa. The recombinant protein migrates approximately 98 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM Nacl, pH 8. 0, 3mM DTT, 10% glycerol

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:

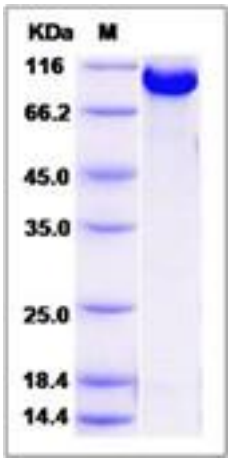
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

RRM1 is a subunit of ribonucleoside-diphosphate reductase which is constituted by two subunits. Ribonucleoside-diphosphate reductase is an enzyme essential for the production of deoxyribonucleotides prior to DNA synthesis in S phase of dividing cells. RRM1 is one of several genes located in the imprinted gene domain of 11p15.5, an important tumor-suppressor gene region. Alterations in this region have been associated with the Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocortical carcinoma, and lung, ovarian, and breast cancer. RRM1 may play a role in malignancies and disease that involve this region.

References

1.Pitterle DM, *et al*. (1999) Human gene for the large subunit of ribonucleotide reductase (RRM1): functional analysis of the promoter. Genomics. 27(2):280-5. 2.Parker NJ, *et al*. (1995) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903. 3.Gautam A, *et al*. (2003) RRM1-induced metastasis suppression through PTEN-regulated pathways. Oncogene. 22(14):2135-42.