Data Sheet (Cat.No.TMPY-03287)

TargetMol

RRM1 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	ribonucleotide reductase M1;R1;RR1;RIR1
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. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P23921
Molecular Weight:	117.9 kDa (predicted); 98 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM Nacl, pH 8.0, 3 mM DTT, 10% glycerol. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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.

Reference

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.
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.
Gautam A,et al. (2003) RRM1-induced metastasis suppression through PTEN-regulated pathways. Oncogene. 22 (14):2135-42.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481