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Product datasheet for TP317559M

Glutamyl Prolyl tRNA synthetase (EPRS) (NM_004446) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human glutamyl-prolyl-tRNA synthetase (EPRS), 100 µg

Species: Human

Expression Host: HEK293T

Expression cDNA Clone or AA Sequence: >RC217559 representing NM_004446
Red=Cloning site Green=Tags(s)

MATLSLTVNSGDPPLGALLAVEHVKDDVSISVEEGKENILHVSENVIFTDVNSILRYLARVATTAGLYGS
NLMEHTEIDHWLEFSATKLSSCDSFTSTINELNHCLSLRTYLVGNSLSLADLCVWATLKGNAAWQEQLKQ
KKAPVHVKRWFGFLEAQQAFQSVGTKWDVSTTKARVAPEKKQDVGKFVELPGAEMGKVTVRFPPEASGYL
HIGHAKAALLNQHYQVNFKGKLIMRFDDTNPEKEKEDFEKVILEDVAMLHIKPDQFTYTSDHFETIMKYA
EKLIQEGKAYVDDTPAEQMKAEREQRIDSKHRKNPIEKNLQMWEEMKKGSQFGQSCCLRAKIDMSSNNGC
MRDPTLYRCKIQPHPRTGNKYNVYPTYDFACPIVDSIEGVTHALRTTEYHDRDEQFYWIIEALGIRKPYI
WEYSRLNLNNTVLSKRKLTWFVNEGLVDGWDDPRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVVNMEWD
KIWAFNKKVIDPVAPRYVALLKKEVIPVNVPEAQEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETF
SEGEMVTFINWGNLNITKIHKNADGKIISLDAKLNLENKDYKKTTKVTWLAETTHALPIPVICVTYEHLI
TKPVLGKDEDFKQYVNKNSKHEELMLGDPCLKDLKKGDIIQLQRRGFFICDQPYEPVSPYSCKEAPCVLI
YIPDGHTKEMPTSGSKEKTKVEATKNETSAPFKERPTPSLNNNCTTSEDSLVLYNRVAVQGDVVRELKAK
KAPKEDVDAAVKQLLSLKAEYKEKTGQEYKPGNPPAEIGQNISSNSSASILESKSLYDEVAAQGEVVRKL
KAEKSPKAKINEAVECLLSLKAQYKEKTGKEYIPGQPPLSQSSDSSPTRNSEPAGLETPEAKVLFDKVAS
QGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSATGAEDKDKKKKEKENKSEKQNKPQK
QNDGQRKDPSKNQGGGLSSSGAGEGQGPKKQTRLGLEAKKEENLADWYSQVITKSEMIEYHDISGCYILR
PWAYAIWEAIKDFFDAEIKKLGVENCYFPMFVSQSALEKEKTHVADFAPEVAWVTRSGKTELAEPIAIRP
TSETVMYPAYAKWVQSHRDLPIKLNQWCNVVRWEFKHPQPFLRTREFLWQEGHSAFATMEEAAEEVLQIL
DLYAQVYEELLAIPVVKGRKTEKEKFAGGDYTTTIEAFISASGRAIQGGTSHHLGQNFSKMFEIVFEDPK
IPGEKQFAYQNSWGLTTRTIGVMTMVHGDNMGLVLPPRVACVQVVIIPCGITNALSEEDKEALIAKCNDY
RRRLLSVNIRVRADLRDNYSPGWKFNHWELKGVPIRLEVGPRDMKSCQFVAVRRDTGEKLTVAENEAETK
LQAILEDIQVTLFTRASEDLKTHMVVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTTARDQDLEPG
APSMGAKSLCIPFKPLCELQPGAKCVCGKNPAKYYTLFGRSY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK

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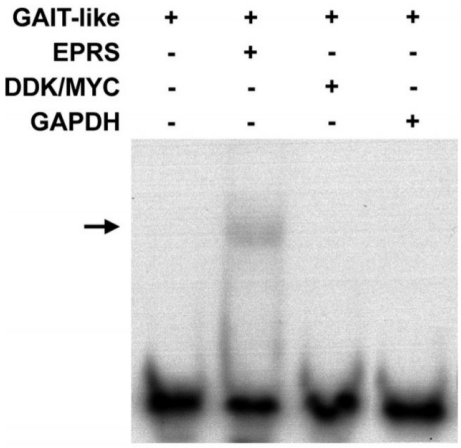
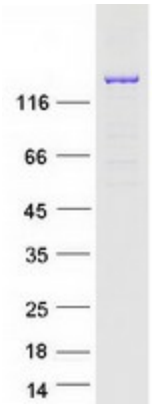
Predicted MW:	170.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity:	EMSA assay (PMID: 25759500)
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_004437
Locus ID:	2058
UniProt ID:	P07814
RefSeq Size:	5021
Cytogenetics:	1q41
RefSeq ORF:	4536
Synonyms:	EARS; EPRS; GLUPRORS; HLD15; PARS; PIG32; QARS; QPRS
Summary:	Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a multifunctional aminoacyl-tRNA synthetase that catalyzes the aminoacylation of glutamic acid and proline tRNA species. Alternative splicing has been observed for this gene, but the full-length nature and biological validity of the variant have not been determined. [provided by RefSeq, Jul 2008]
Protein Families:	Druggable Genome
Protein Pathways:	Aminoacyl-tRNA biosynthesis, Metabolic pathways, Porphyrin and chlorophyll metabolism

Product images:



Study of the interaction between EPRS (OriGene [TP317559]) and the TGEV GAIT-like RNA motif by RNA EMSA. Purified EPRS, DDK/Myc tag, and GAPDH proteins were incubated with the biotinylated GAIT-like RNA motif riboprobe (GAIT-like). The RNA-protein complexes were resolved by electrophoresis on a non-denaturing 4% polyacrylamide gel, and the biotinylated riboprobe was detected using a specific kit. The arrow indicates the shifted protein-RNA complex. Figure cited from MBio, PMID: 25759500



Coomassie blue staining of purified EPRS protein (Cat# [TP317559]). The protein was produced from HEK293T cells transfected with EPRS cDNA clone (Cat# [RC217559]) using MegaTran 2.0 (Cat# [TT210002]).