

Active Recombinant Full Length Human EPRS1 Protein, C-Flag-tagged

Cat. No. EPRS1-167HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human EPRS1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	EMSA assay
Molecular Mass	170.4 kDa
AA Sequence	MATLSLTVNSGDPPLGALLAVEHVKDDVSISVEEGKENILHVSENVIFTDVNSILRYLA RVATTAGLYGS NLMEHTEIDHWLEFSATKLSSCDSFTSTINELNHCLSLR TYLVGNS LSLADLCVWATLKGNAAWQEQLKQ KKAPVHVKRWFGFLEAQQAFQSVG TKWDVS TTKARVAPEKKQDVGKFVELPGAEMGKVTVRFPPEASGYL HIGHAKAALLNQHYQV NFKGKLIMRFD D TNPEKEKEDFEKVILEDVAMLHIKPDQFTY TSDHFETIMKYA EKLI

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

QEGKAYVDDTPAEQMKAEREQRIDSKHRKNPIEKNLQMWEEEMKKGSQFGQSCCLR
 AKIDMSSNNGC MRDPTLYRCKIQHPRTGNKYNVYPTYDFACPIVDSIEGVTHALRT
 TEYHDRDEQFYWIIIEALGIRKPYI WEYSRLNLNNTVLSKRKLTWVFNEGLVDGWDD
 PRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVVMMEWD KIWAFNKKVIDPVAPRY
 VALLKKEVIPVNVPEAQEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETF SEG
 EMVTFINWGNLNITKIHKNADGKIISLDAKLNLNKDYKKTTKVTWLAETTHALPIVIC
 VTYEHLI TKPVLGKDEDFKQYVNKNSKHEELMLGDPCLKDLKKGDIIQLQRRGFFIC
 DQPYEPVSPYSCKEAPCVLI YIPDGHTKEMPTSGSKEKTKVEATKNETSAPFKERPT
 PSLNNNCTTSEDVSLVLYNRVAVQGDVVRELKAK KAPKEDVDAAVKQLLSLKAHEYKE
 KTGQEYKPGNPPAEIGQNISSNSSASILESKSLYDEVAAQGEVVRKL KAEKSPKAKI
 NEAVECLLSLKAQYKEKTGKEYIPGQPPLSQSSDSSPTRNSEPAGLETPEAKVLFDK
 VAS QGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSATGAEDKDK
 KKKEKENKSEKQNKPKQ QNDGQRKDPSKNQGGGLSSSGAGEGQGPKKQTRLGL
 EAKKEENLADWYSQVITKSEMIEYHDISGCYILR PWAYAIWEAIKDFDAEIKKLGE
 NCYFPMFVSQSALEKEKTHVADFAPEVAWVTRSGKTELAEPPIAIRP TSETVMYPAYA
 KVVQSHRDLPIKLNQWCNVVRWEFKHPQPFLRTREFLWQEGHSAFATMEEAAEEV
 LQIL DLYAQVYEELLAIPVVKGRKTEKEKFAGGDYTTTIEAFISASGRAIQGGTSHHL
 GQNFSKMFEIVFEDPK IPGEKQFAYQNSWGLTTRTIGVMTMVHGDNMGLVLPVRV
 ACVQVVIIPCGITNALSEEDKEALIAKCNDY RRRLLSVNIRVRADLRDNYSPGWKFNH
 WELKGVPRILEVGPDMKSCQFVAVRRDTGEKLTVAENEAETK LQAILEDIQVTLFT
 RASEDLKTHMVVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTTARDQDLEPG
 APSMGAKSLCIPFKPLCELQPGAKCVCGKNPAKYITLFGRSYTRTRPLEQKLISEED
 LAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining.

Stability Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

Storage Store at -80 centigrade.

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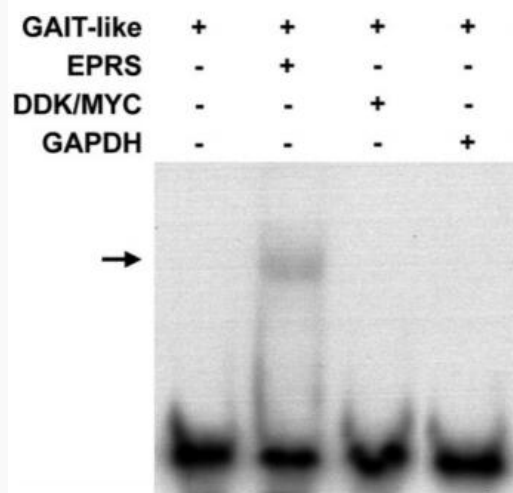
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Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome
Protein Pathways	Aminoacyl-tRNA biosynthesis, Metabolic pathways, Porphyrin and chlorophyll metabolism
Full Length	Full L.
GENE INFORMATION	
Gene Name	EPRS1 glutamyl-prolyl-tRNA synthetase 1 [Homo sapiens (human)]
Official Symbol	EPRS1
Synonyms	EARS; EPRS; PARS; QARS; QPRS; HLD15; PIG32; GLUPRORS
Gene ID	2058
mRNA Refseq	NM_004446.3
Protein Refseq	NP_004437.2
MIM	138295
UniProt ID	P07814

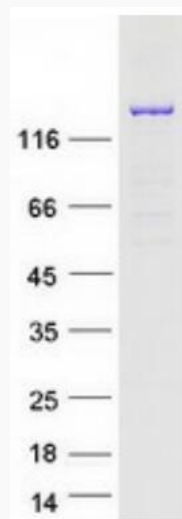
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Study of the interaction between EPRS and the TGEV GAIT-like RNA motif by RNA EMSA. Purified EPRS, DDK/Myc tag, and GAPDH proteins were incubated with the biotinylated GAIT-like RNA motif riboprobe (GAITlike). The RNA-protein complexes were resolved 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.



Coomassie blue staining of purified EPRS protein.

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