

Product datasheet for TP518237

Eprs (NM_029735) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse glutamyl-prolyl-tRNA synthetase (Eprs), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA	>MR218237 representing NM_029735
Clone or AA Sequence:	Red=Cloning site Green=Tags(s)

MAALCLTVNAGNPPEALLAVEHVKGDVSVSVEEGKENLLRVSETVAFTDVNSILRYLARIATTSGLYGT
NLMEHTEIDHWLEFSATKLSSCDRLTSAINELNHCLSLRITYLVGNSLTLADLCVWATLKGSAAWQEHLKQ
NKTLVHVKRWFGFLEAQQAFRSVGTKWDVSGNRATVAPDKKQDVGKVELPGAEMGKVTFRPPEASGYL
HIGHAKAALLNQHYQVNFKGLIMRFDDTNPEKEKEDFEKVILEDVAMLHIKPDQFTYTSDFETIMKYA
EKLIQEGKAYVDDTPAEQMKAEREQRTESKHRKNSVEKNLQMWEEKKGSGFQSCCLRAKIDMSSNNGC
MRDPTLYRCKIQPHPRGTGNKYNVYPTYDFACPIVDSIEGVTHALRTTEYHDRDEQFYWIEALGIRKPYI
WEYSRLNLNNTVLSKRKLTWVNEGLVDGWDDPRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVNMMEWD
KIWAFNKKVIDPVAPRYVALLKKEVVPVNLDAQEEMKEVARHPKPNPDVGLKPVWYSPKVFIEGADAETF
SEGEMVTFINWGNINITKIHKNADGKITSLEDAKLNLENKDYKTKITWLAESTHALSIPAVCVTYEHLI
TKPVLGKDEDKQYINKDSKHEELMLGDPCLKDLKKGDIQLQRRGFFICDQPYEPVSPYSCREAPCILI
YIPDGHTKEMPTSGSKEKTKVEISKKETSSAPKERPAPAVSSTCATAEDSSVLYSRVAVQGDVVRELKAK
KAPKEDIDAAVKQLLTLKAEYKEKTGQEYKPGNPSAAAVQTVSTKSSSNTVESTSLYNKVAQGEVVRKL
KAEKAPKAKVTEAVECLLSLKAEYKEKTGKDYVPGQPPASQNSHNSPVSNAQPAGAEKPEAKVLFDRVAC
QGEVVRKLKAEKASKDQVDSAVQELLQLKAQYKSLTGIEYKPVSATGAEDKDKKKKEKENKSEKQNKPKQ
QNDGQGKDSKSGSLSSGGGAGEGQPKKQTRLGLEAKKEENLAEWYSQVITKSEMIYYDVSGCYILR
PWSYSIWESIKDFDAEIKKLVENCYFPIFVSQAALKEKKNHIEDFAPEVAWVTRSGKTELAEPPIAIRP
TSETVMYPAYAKWVQSHRDLPLVRLNQCWVVRWEFKHPQPFLRTREFLWQEGHSAFATFEEAADEVLQIL
ELYARVYEELLAIPVVRGRKTEKEKFAGGDYTTTIEAFISASGRAIQGATSHHLGQNFQSKMCEIVFEDPK
TPGEKQFAYQCSWGLTTRTIGVMVMVHGDNMGLVLPVRVASVQVWVIPCITNALSEEDREALMAKCNEY
RRRLGANIRVRVLDLRDNYS PGWKFNHWELKGVPRLEVGP RDMKSCQFVAVRRDTGEKLTIAEKEAEAK
LEKVLEDIQLNLFTRASEDLKTHMVSNTLEDFQKVLDAKVAQIPFCGEIDCEDWIKKMTARDQDVEPG
APSMGAKSLCIPFNPLCELQPGAMCVCGKNPAKFYTLFGRSY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Tag:	C-MYC/DDK
Predicted MW:	170.5 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
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 after receiving vials.
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_084011
Locus ID:	107508
UniProt ID:	Q8CGC7
RefSeq Size:	4850
Cytogenetics:	1 H5
RefSeq ORF:	4536
Synonyms:	2410081F06Rik; 3010002K18Rik; C79379; Qprs
Summary:	Multifunctional protein which is primarily part of the aminoacyl-tRNA synthetase multienzyme complex, also know as multisynthetase complex, that catalyzes the attachment of the cognate amino acid to the corresponding tRNA in a two-step reaction: the amino acid is first activated by ATP to form a covalent intermediate with AMP and is then transferred to the acceptor end of the cognate tRNA (By similarity). The phosphorylation of EPRS, induced by interferon-gamma, dissociates the protein from the aminoacyl-tRNA synthetase multienzyme complex and recruits it to the GAIT complex that binds to stem loop-containing GAIT elements in the 3' UTR of diverse inflammatory mRNAs (such as ceruplasmin), suppressing their translation. Interferon-gamma can therefore redirect, in specific cells, the EPRS function from protein synthesis to translation inhibition (PubMed:23071094). Also functions as an effector of the mTORC1 signaling pathway by promoting, through SLC27A1, the uptake of long-chain fatty acid by adipocytes. Thereby, it also plays a role in fat metabolism and more indirectly influences lifespan (PubMed:28178239). [UniProtKB/Swiss-Prot Function]