

Anti-SYEP antibody



Description Unconjugated Rabbit polyclonal to SYEP

Model STJ193060

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Gene ID <u>2058</u>

Gene Symbol EPRS

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity SYEP Polyclonal Antibody detects endogenous levels of protein.

Purification SYEP antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Bifunctional glutamate/proline--tRNA ligase Bifunctional aminoacyl-tRNA

synthetase Cell proliferation-inducing gene 32 protein Glutamatyl-prolyl-tRNA synthetase Includes: Glutamate--tRNA ligase Glutamyl-tRNA

synthetase

Molecular Weight 166 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:3418OMIM:138295

Alternative Names Bifunctional glutamate/proline--tRNA ligase Bifunctional aminoacyl-tRNA

synthetase Cell proliferation-inducing gene 32 protein Glutamatyl-prolyl-tRNA synthetase Includes: Glutamate--tRNA ligase Glutamyl-tRNA

synthetase

Function 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. Component of the GAIT (gamma interferon-activated inhibitor of translation) complex which mediates interferon-gamma-induced transcript-selective translation inhibition in inflammation processes. Upon interferon-gamma activation and subsequent phosphorylation dissociates from the multisynthetase complex and assembles into the GAIT complex which binds to stem loop-containing GAIT elements in the 3'-UTR of diverse inflammatory mRNAs (such as ceruplasmin) and suppresses their translation.

Sequence and Domain Family The WHEP-TRS domain is involved in RNA binding.

Cellular Localization Cytoplasm

Post-translational Phosphorylated at Ser-886 by CDK5 and at Ser-999 by an unknown kinase in

a IFN-gamma-dependent manner in monocytes; these sequential

phosphorylations are causing release from the multisynthetase complex, association with the GAIT complex and subsequent involvement in transcript-selective translation inhibition. Phosphorylation at Ser-999 is specifically required for the interaction of GAIT complex-associated RPL13A with eIF4G.

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Modifications

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