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EEFSEC Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9077b

Product Information

Application	WB, IHC-P, E
Primary Accession	P57772
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23735
Calculated MW	65305
Antigen Region	541-568

Additional Information

Gene ID	60678
Other Names	Selenocysteine-specific elongation factor, Elongation factor sec, Eukaryotic elongation factor, selenocysteine-tRNA-specific, EEFSEC, SELB
Target/Specificity	This EEFSEC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 541-568 amino acids from the C-terminal region of human EEFSEC.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EEFSEC Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EEFSEC {ECO:0000303|PubMed:27708257, ECO:0000312|HGNC:HGNC:24614}
Function	Translation factor required for the incorporation of the rare amino acid selenocysteine encoded by UGA codons (PubMed:27708257, PubMed:35709277). Replaces the eRF1-eRF3-GTP ternary complex for the

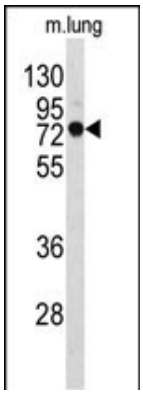
insertion of selenocysteine directed by the UGA codon (PubMed:27708257, PubMed:35709277). Insertion of selenocysteine at UGA codons is mediated by SECISBP2 and EEFSEC: SECISBP2 (1) specifically binds the SECIS sequence once the 80S ribosome encounters an in-frame UGA codon and (2) contacts the RPS27A/eS31 of the 40S ribosome before ribosome stalling (PubMed:35709277). (3) GTP-bound EEFSEC then delivers selenocysteinyl-tRNA(Sec) to the 80S ribosome and adopts a preaccommodated state conformation (PubMed:35709277). (4) After GTP hydrolysis, EEFSEC dissociates from the assembly, selenocysteinyl-tRNA(Sec) accommodates, and peptide bond synthesis and selenoprotein elongation occur (PubMed:35709277).

Cellular Location Cytoplasm. Nucleus.

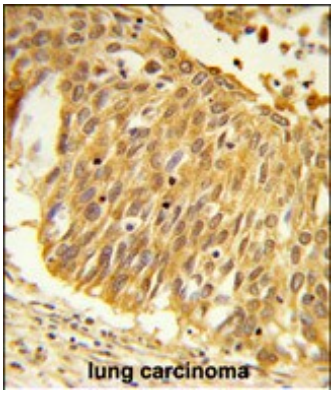
Background

EEFSEC is a translation factor necessary for the incorporation of selenocysteine into proteins. It probably replaces EF-Tu for the insertion of selenocysteine directed by the UGA codon. SelB binds GTP and GDP.

Images



Western blot analysis of EEFSEC Antibody (C-term) (Cat. #AP9077b) in mouse lung tissue lysates (35ug/lane). EEFSEC (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with EEFSEC Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.