

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat eIF5A in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human eIF5A Lys85-Lys154 Accession # P63241
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

eIF5A (Elongation initiation factor 5A; also eIF5A1, Rev-binding factor and eIF-4D) is a 16-19 kDa member of the eIF5A family of molecules. It is ubiquitously expressed, being found in all human cells examined. eIF5A acts as a stabilizer of RNA transcripts and acts as a positive modulator of p53-mediated apoptosis. It also may be involved in the formation of the first peptide bond during select protein synthesis, and is known to be essential for cell cycle progression through G1/S. The human eIF5A precursor is 154 amino acids (aa) in length. It contains a 71 aa DOHH (deoxyhypusine hydroxylase)-binding site (aa 20-90) and a 69 aa RNA-binding domain (aa 84-152). eIF5A undergoes a posttranslational modification that converts the precursor peptide into a mature molecule. This modification occurs on Lys50, and involves the transfer and hydroxylation of an aminobutyl sequence from spermidine, creating a unique amino acid termed hypusine (hydroxyputrisine lysine). When hypusine is unacetylated, eIF5A is active; when acetylated, eIF5A is inactive. Nonhypusinated eIF5A is found in both cytoplasm and nucleus, while hypusinated eIF5A is targeted to the cytoplasm. There is one isoform variant that shows a 32 aa substitution for aa 1-32. Over aa 85-154, human and mouse are identical in aa sequence. Over the same aa sequence, human eIF5A (on Chr 17p13) also shares 98% and 69% aa identity with human eIF5A1-Like (on Chr 10q22) and human eIF5A2 (on Chr 3q26), respectively.

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