

DESCRIPTION

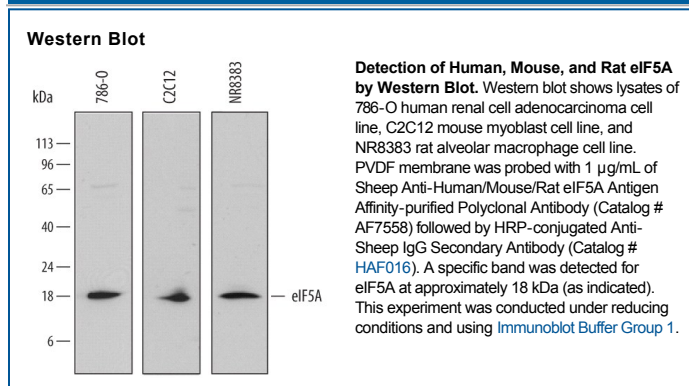
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat eIF5A in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human eIF5A Lys85-Lys154 Accession # P63241
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below

DATA

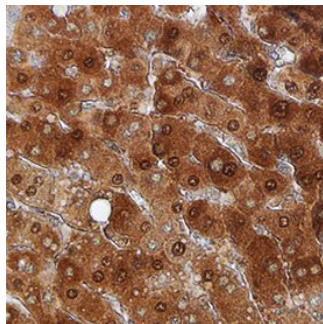


Immunohistochemistry



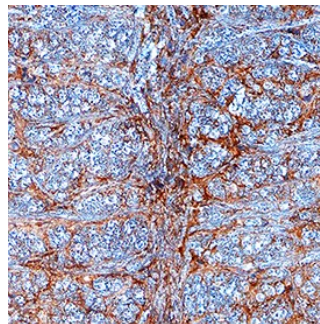
eIF5A in Mouse Embryo. eIF5A was detected in immersion fixed frozen sections of mouse embryo (13 d.p.c.) using Sheep Anti-Human/Mouse/Rat eIF5A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7558) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC006). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to developing central nervous system. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

Immunohistochemistry



eIF5A in Human Liver. eIF5A was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human/Mouse/Rat eIF5A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7558) at 1.7 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC006). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in hepatocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

Immunohistochemistry



eIF5A in Rat Brain. eIF5A was detected in perfusion fixed frozen sections of rat brain (brainstem medulla) using Sheep Anti-Human/Mouse/Rat eIF5A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7558) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC006). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in neurons. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.