

eIF3 p110 (B-6): sc-74507



The Power to Question

BACKGROUND

Translation initiation in eukaryotes necessitates the assembly of an 80S ribosomal complex containing methionyl initiator tRNA (Met-tRNAⁱMet), which is base paired at the initiation codon (AUG, GUG) in eligible transcripts. Eukaryotic initiation factors (eIFs) are utilized in a sequence of reactions that leads to 80S ribosomal assembly and initiation of translation. Eukaryotic initiation factor-3 (eIF3) is the largest family of eIFs and consists of at least ten unique subunits (p170, p116, p110, p66, p48, p47, p44, p40, p36 and p35) in mammals. eIF3 subunit-9 (eIF3-h, eIF3-p116, p116, eIF3-S9, PRT1) is a 873 amino acid component of the eIF3 multi-subunit complex that is involved in ribosomal 48S complex formation. Association of the eIF3 complex with the 40S ribosomal subunit stabilizes eIF2-GTP-Met-tRNAⁱMet complex association and mRNA binding, and promotes dissociation of 80S ribosomes into 40S and 60S subunits.

CHROMOSOMAL LOCATION

Genetic locus: EIF3CL/EIF3C (human) mapping to 16p11.2; Eif3c (mouse) mapping to 7 F3.

SOURCE

eIF3 p110 (B-6) is a mouse monoclonal antibody raised against amino acids 611-761 mapping within an internal region of eIF3 p110 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

eIF3 p110 (B-6) is available conjugated to agarose (sc-74507 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74507 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74507 PE), fluorescein (sc-74507 FITC), Alexa Fluor® 488 (sc-74507 AF488), Alexa Fluor® 546 (sc-74507 AF546), Alexa Fluor® 594 (sc-74507 AF594) or Alexa Fluor® 647 (sc-74507 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74507 AF680) or Alexa Fluor® 790 (sc-74507 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

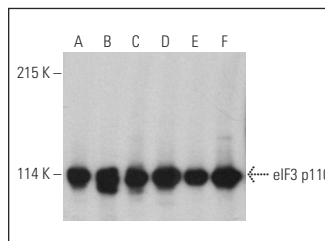
eIF3 p110 (B-6) is recommended for detection of eIF3 p110 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). eIF3 p110 (B-6) is also recommended for detection of eIF3 p110 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for eIF3 p110 siRNA (h): sc-40545, eIF3 p110 siRNA (m): sc-40546, eIF3 p110 shRNA Plasmid (h): sc-40545-SH, eIF3 p110 shRNA Plasmid (m): sc-40546-SH, eIF3 p110 shRNA (h) Lentiviral Particles: sc-40545-V and eIF3 p110 shRNA (m) Lentiviral Particles: sc-40546-V.

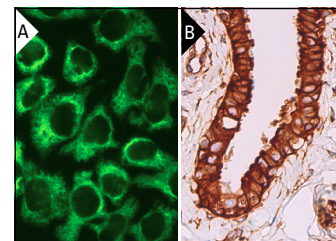
Molecular Weight of eIF3 p110: 110 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA

eIF3 p110 (B-6) HRP: sc-74507 HRP. Direct western blot analysis of eIF3 p110 expression in HeLa (A), JEG-3 (B), F9 (C), 293T (D), MIA PaCa-2 (E) and SP2/0 (F) whole cell lysates.



eIF3 p110 (B-6): sc-74507. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Baird, N.L., et al. 2012. Arenavirus infection induces discrete cytosolic structures for RNA replication. *J. Virol.* 86: 11301-11310.
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- Gal, J., et al. 2016. ALS mutant SOD1 interacts with G3BP1 and affects stress granule dynamics. *Acta Neuropathol.* 132: 563-576.
- Aguero, T., et al. 2017. Maternal dead-end 1 promotes translation of nanos1 by binding the eIF3 complex. *Development* 144: 3755-3765.
- Martínez-Noël, G., et al. 2018. Network analysis of UBE3A/E6AP-associated proteins provides connections to several distinct cellular processes. *J. Mol. Biol.* 430: 1024-1050.
- Smirnova, V.V., et al. 2019. eIF4G2 balances its own mRNA translation via a PCBP2-based feedback loop. *RNA* 25: 757-767.
- Kaliatsi, E.G., et al. 2020. Functional and structural aspects of La protein overexpression in lung cancer. *J. Mol. Biol.* 432: 166712.
- Luqman-Fatah, A., et al. 2023. The interferon stimulated gene-encoded protein HELZ2 inhibits human LINE-1 retrotransposition and LINE-1 RNA-mediated type I interferon induction. *Nat. Commun.* 14: 203.
- Xue, M., et al. 2024. METTL16 promotes liver cancer stem cell self-renewal via controlling ribosome biogenesis and mRNA translation. *J. Hematol. Oncol.* 17: 7.

RESEARCH USE

For research use only, not for use in diagnostic procedures.