SANTA CRUZ BIOTECHNOLOGY, INC.

elF3 p110 (C-20): sc-16376



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- η , 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.

REFERENCES

- 1. Asano, K., et al. 1997. Conservation and diversity of eukaryotic translation initiation factor eIF3. J. Biol. Chem. 272: 1101-1119.
- Chaudhuri, J., et al. 1999. Distinct functions of eukaryotic translation initiation factors eIF1A and eIF3 in the formation of the 40S ribosomal preinitiation complex. J. Biol. Chem. 274: 17975-17980.
- 3. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603916. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Asano, K., et al. 2000. A multifactor complex of eukaryotic initiation factors, eIF1, eIF2, eIF3, eIF5, and initiator tRNA(Met) is an important translation initiation intermediate *in vivo*. Genes Dev. 14: 2534-2546.

CHROMOSOMAL LOCATION

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

SOURCE

eIF3 p110 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of eIF3 p100 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

Blocking peptide available for competition studies, sc-16376 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C. **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

elF3 p110 (C-20) is recommended for detection of elF3 p110 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 (C-20) 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 elF3 p110: 110 kDa.

Positive Conrols: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or JEG-3 whole cell lysate: sc-364255.

DATA





eIF3 p110 (C-20): sc-16376. Western blot analysis of eIF3 p110 expression in F9 (A) and NIH/3T3 (B) whole cell lysates.

eIF3 p110 (C-20): sc-16376. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic staining of neuronal cells (B).

SELECT PRODUCT CITATIONS

- 1. Sanz, M.A., et al. 2009. Dual mechanism for the translation of subgenomic mRNA from Sindbis virus in infected and uninfected cells. PLoS ONE 4: e4772.
- Baird, N.L., et al. 2012. Arenavirus infection induces discrete cytosolic structures for RNA replication. J. Virol. 86: 11301-11310.

MONOS Satisfation Guaranteed

Try **elF3 p110 (B-6): sc-74507**, our highly recommended monoclonal aternative to elF3 p110 (C-20).