

eIF3K (m): 293T Lysate: sc-126780

BACKGROUND

eIF3K (eukaryotic translation initiation factor 3 subunit K, Muscle-specific gene M9 protein) is a widely expressed translation initiation factor that belongs to the eIF3 subunit K family. Translation initiation factor 3 (eIF3) is a multisubunit complex containing at least 12 subunits. eIF3 binds to the 40S ribosomal subunit, promotes the binding of methionyl-tRNA_i and mRNA, and interacts with several other initiation factors to form the 40S initiation complex. eIF3K is the smallest subunit of eIF3 and it interacts with several other subunits of eIF3 and the 40S ribosomal subunit. eIF3K is conserved among high eukaryotes, including mammals, insects, and plants, and it is ubiquitously expressed in human tissues. eIF3K is distributed both in nucleus and cytoplasm and colocalizes with cyclin D3, a regulatory subunit of cyclin-dependent kinase 4 (Cdk4).

REFERENCES

1. Asano, K., et al. 1997. Structure of cDNAs encoding human eukaryotic initiation factor 3 subunits. Possible roles in RNA binding and macromolecular assembly. *J. Biol. Chem.* 272: 27042-27052.
2. Karki, S., et al. 2002. PLAC24 is a cytoplasmic dynein-binding protein that is recruited to sites of cell-cell contact. *Mol. Biol. Cell* 13: 1722-1734.
3. Mayeur, G.L., et al. 2003. Characterization of eIF3K: a newly discovered subunit of mammalian translation initiation factor eIF3. *Eur. J. Biochem.* 270: 4133-4139.
4. Shen, X., et al. 2004. Identification of the p28 subunit of eukaryotic initiation factor 3 (eIF3k) as a new interaction partner of cyclin D3. *FEBS Lett.* 573: 139-146.
5. Wei, Z., et al. 2004. Crystal structure of human eIF3K, the first structure of eIF3 subunits. *J. Biol. Chem.* 279: 34983-34990.
6. Scheel, H. and Hofmann, K. 2005. Prediction of a common structural scaffold for proteasome lid, COP9-signalosome and eIF3 complexes. *BMC Bioinformatics* 6: 71.
7. De Martelaere, K., et al. 2007. Novel interaction between the human 5-HT7 receptor isoforms and PLAC24/eIF3K. *Cell. Signal.* 19: 278-288.

CHROMOSOMAL LOCATION

Genetic locus: Eif3k (mouse) mapping to 7 A3.

PRODUCT

eIF3K (m): 293T Lysate represents a lysate of mouse eIF3K transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

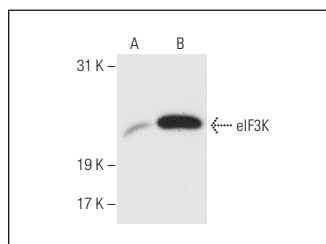
APPLICATIONS

eIF3K (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive eIF3K antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

eIF3K (2313C2a): sc-81262 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse eIF3K expression in eIF3K transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



eIF3K (2313C2a): sc-81262. Western blot analysis of eIF3K expression in non-transfected: sc-117752 (A) and mouse eIF3K transfected: sc-126780 (B) 293T whole cell lysates.

RESEARCH USE

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