

# eIF3K (F-4): sc-393234

## 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<sub>i</sub> 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

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- 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.
- 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.
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- Scheel, H. and Hofmann, K. 2005. Prediction of a common structural scaffold for proteasome lid, COP9-signalosome and eIF3 complexes. *BMC Bioinformatics* 6: 71.
- De Martelaere, K., et al. 2007. Novel interaction between the human 5-HT7 receptor isoforms and PLAC-24/eIF3k. *Cell. Signal.* 19: 278-288.

## CHROMOSOMAL LOCATION

Genetic locus: EIF3K (human) mapping to 19q13.2.

## SOURCE

eIF3K (F-4) is a mouse monoclonal antibody raised against amino acids 1-218 representing full length eIF3K of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

eIF3K (F-4) is recommended for detection of eIF3K of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for eIF3K siRNA (h): sc-77250, eIF3K shRNA Plasmid (h): sc-77250-SH and eIF3K shRNA (h) Lentiviral Particles: sc-77250-V.

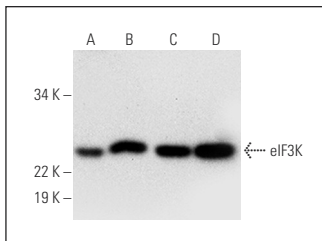
Molecular Weight of eIF3K: 25 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, NTERA-2 cl.D1 whole cell lysate: sc-364181 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



eIF3K (F-4): sc-393234. Western blot analysis of eIF3K expression in IMR-32 (A), NTERA-2 cl.D1 (B), HeLa (C) and T-47D (D) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.