

Int-6 (A-8): sc-74505

BACKGROUND

Int-6, also designated eIF3e, eIF3-p46, eIF3-p48 and eukaryotic translation initiation factor 3, subunit 6, regulates translation and protein degradation through binding with three complexes: the eukaryotic translation initiation factor 3 (eIF3), the proteasome regulatory lid and the constitutive photomorphogenesis 9 signalosome. eIF3 is a complex that mediates assembly of 40S ribosomal subunits on mRNA bearing either a 5'-cap or an internal ribosome entry site (IRES). The Int-6 gene is a site of mouse mammary tumour virus (MMTV) integration in murine tumors. Reducing Int-6 expression by RNA interference in HeLa cells alters mitosis progression through defects in spindle formation, chromosome segregation and cytokinesis. These aberrations appear to correlate with an inhibition of cyclin B-Cdk1 kinase activity, due to a protracted inhibitory phosphorylated state of Cdk1.

REFERENCES

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- Asano, K., et al. 1997. The translation initiation factor eIF3-p48 subunit is encoded by Int-6, a site of frequent integration by the mouse mammary tumor virus genome. *J. Biol. Chem.* 272: 23477-23480.
- Guo, J., et al. 2000. Characterization of the interaction between the interferon-induced protein P56 and the Int-6 protein encoded by a locus of insertion of the mouse mammary tumor virus. *J. Virol.* 74: 1892-1899.
- Morris-Desbois, C., et al. 2001. The human protein HSPC021 interacts with Int-6 and is associated with eukaryotic translation initiation factor 3. *J. Biol. Chem.* 276: 45988-45995.
- Rasmussen, S.B., et al. 2001. Evidence for the transforming activity of a truncated Int-6 gene, *in vitro*. *Oncogene* 20: 5291-5301.
- Yen, H.C., et al. 2003. Int-6—a link between the proteasome and tumorigenesis. *Cell Cycle* 2: 81-83.
- von Arnim, A.G., et al. 2003. Protein homeostasis: a degrading role for Int-6/eIF3e. *Curr. Biol.* 13: R323-R325.

CHROMOSOMAL LOCATION

Genetic locus: EIF3E (human) mapping to 8q23.1; Eif3e (mouse) mapping to 15 B3.2.

SOURCE

Int-6 (A-8) is a mouse monoclonal antibody raised against amino acids 246-445 mapping at the C-terminus of Int-6 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.

STORAGE

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

APPLICATIONS

Int-6 (A-8) is recommended for detection of Int-6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Int-6 siRNA (h): sc-40561, Int-6 siRNA (m): sc-40562, Int-6 siRNA (r): sc-270194, Int-6 shRNA Plasmid (h): sc-40561-SH, Int-6 shRNA Plasmid (m): sc-40562-SH, Int-6 shRNA Plasmid (r): sc-270194-SH, Int-6 shRNA (h) Lentiviral Particles: sc-40561-V, Int-6 shRNA (m) Lentiviral Particles: sc-40562-V and Int-6 shRNA (r) Lentiviral Particles: sc-270194-V.

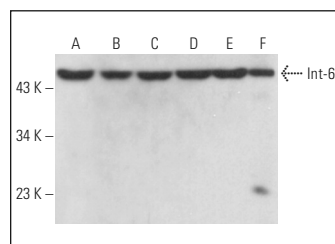
Molecular Weight of Int-6: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or CCRF-CEM cell lysate: sc-2225.

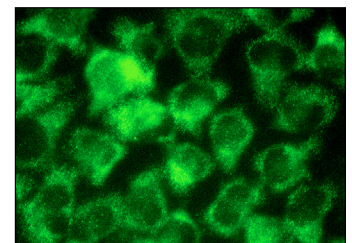
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Int-6 (A-8): sc-74505. Western blot analysis of Int-6 expression in NIH/3T3 (A), HeLa (B), CCRF-CEM (C), HEK293 (D) and 3611-RF (E) whole cell lysates and rat thymus tissue extract (F).



Int-6 (A-8): sc-74505. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Villa, N., et al. 2013. Human eukaryotic initiation factor 4G (eIF4G) protein binds to eIF3c, -d, and -e to promote mRNA recruitment to the ribosome. *J. Biol. Chem.* 288: 32932-32940.

RESEARCH USE

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