

# Product Datasheet

## EIF3A Antibody - BSA Free

### NBP1-18891

Unit Size: 100 ul

Store at 4C. Do not freeze.

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**NBP1-18891**

EIF3A Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	100 ul
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

**Product Description**

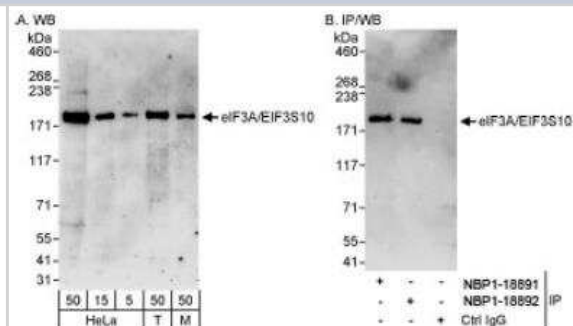
<b>Host</b>	Rabbit
<b>Gene ID</b>	8661
<b>Gene Symbol</b>	EIF3A
<b>Species</b>	Human, Mouse
<b>Immunogen</b>	The immunogen recognized by this antibody maps to a region between residue 1 and 50 of human translation initiation factor 3 subunit A (eukaryotic translation initiation factor 3, subunit 10) using the numbering given in entry NP_003741.1 (GeneID 8661).

**Product Application Details**

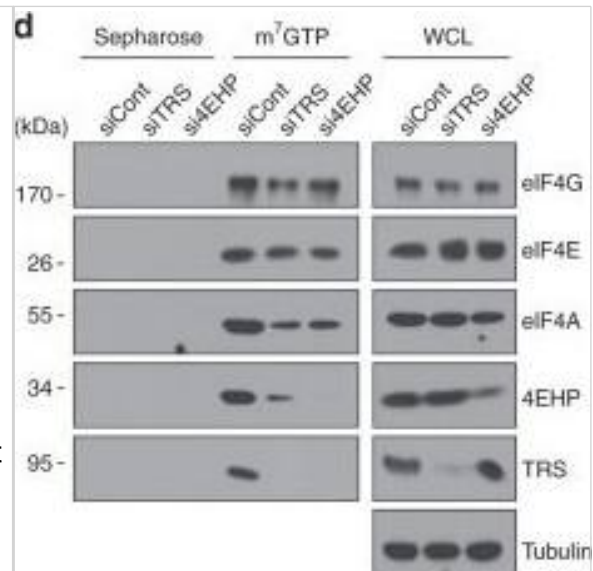
<b>Applications</b>	Western Blot, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot 1:2000-1:10000, Immunoprecipitation 2-5 ug/mg lysate

**Images**

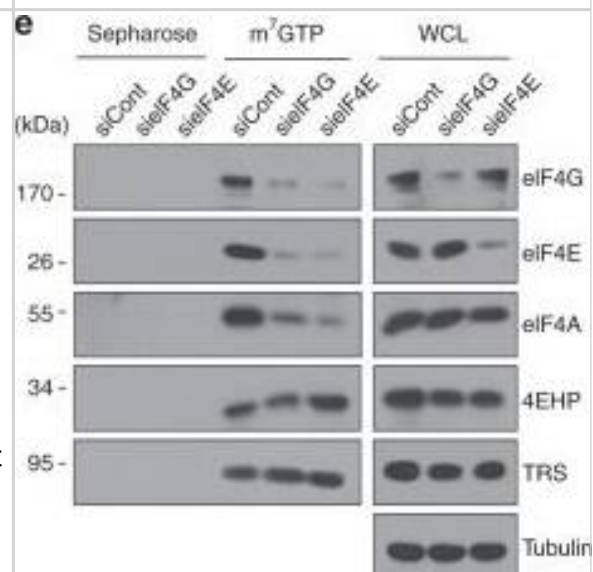
Western Blot: EIF3A Antibody [NBP1-18891] - Whole cell lysate from HeLa, 293T and mouse NIH3T3 cells. eIF3A/EIF3S10 was also immunoprecipitated by rabbit anti-eIF3A/ EIF3S10 antibody NBP1-18892.



TRS functions similarly to eIF4G & acts as an eIF4F analog. a Pull-down assay of co-expressed TRS-Strep with eIF4A- or eIF4G-FLAG in 293 T cells. TRS-Strep was pulled down with Strep-Tactin beads, & co-precipitation of eIF4A or 4 G was determined by immunoblotting with anti-FLAG antibody. EV, empty vector. \* indicates a nonspecific band. b Immunoassay of the co-expression of different combinations of plasmids in 293T cells. Myc-TRS was immunoprecipitated with anti-Myc antibody, & co-precipitation of other proteins was determined using tag-specific antibodies. c Immunoassay of co-expressed eIF4A-FLAG with GST-fused full-length TRS or its various domains in 293T cells. eIF4A-FLAG was immunoprecipitated with anti-FLAG antibody, & co-precipitated TRS proteins were determined by immunoblotting with anti-GST antibody. d Pull-down assay of endogenous translation initiation factors with m7GTP-Sepharose beads in 293 T cells transfected with siRNAs against TRS, 4EHP, or a non-targeting control (siCont). Cap-bound proteins were eluted from beads & immunoblotted with the indicated antibodies. Sepharose beads were used as a negative control. e Pull-down assay of endogenous translation initiation factors with m7GTP-Sepharose beads in 293T cells transfected with siRNAs against eIF4G, eIF4E, or siCont, & their suppression effects on cap-binding of other components, were determined as in (d). The data are representative of at least three experiments, each with similar results Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30902983>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



TRS functions similarly to eIF4G & acts as an eIF4F analog. a Pull-down assay of co-expressed TRS-Strep with eIF4A- or eIF4G-FLAG in 293 T cells. TRS-Strep was pulled down with Strep-Tactin beads, & co-precipitation of eIF4A or 4 G was determined by immunoblotting with anti-FLAG antibody. EV, empty vector. \* indicates a nonspecific band. b Immunoassay of the co-expression of different combinations of plasmids in 293T cells. Myc-TRS was immunoprecipitated with anti-Myc antibody, & co-precipitation of other proteins was determined using tag-specific antibodies. c Immunoassay of co-expressed eIF4A-FLAG with GST-fused full-length TRS or its various domains in 293T cells. eIF4A-FLAG was immunoprecipitated with anti-FLAG antibody, & co-precipitated TRS proteins were determined by immunoblotting with anti-GST antibody. d Pull-down assay of endogenous translation initiation factors with m7GTP-Sepharose beads in 293 T cells transfected with siRNAs against TRS, 4EHP, or a non-targeting control (siCont). Cap-bound proteins were eluted from beads & immunoblotted with the indicated antibodies. Sepharose beads were used as a negative control. e Pull-down assay of endogenous translation initiation factors with m7GTP-Sepharose beads in 293T cells transfected with siRNAs against eIF4G, eIF4E, or siCont, & their suppression effects on cap-binding of other components, were determined as in (d). The data are representative of at least three experiments, each with similar results Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30902983>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

- Hassan Hayek, Lauriane Gross, Aurélie Janvier, Laure Schaeffer, Franck Martin, Gilbert Eriani, Christine Allmang  
eIF3 interacts with histone H4 messenger RNA to regulate its translation *The Journal of Biological Chemistry* 2021-03-23 [PMID: 33766559]
- Duan H, Zhang S, Zarai Y et al. eIF3 mRNA selectivity profiling reveals eIF3k as a cancer-relevant regulator of ribosome content *The EMBO Journal* 2023-06-15 [PMID: 37155573]
- Kejiou NS, Ilan L, Aigner S et al. Pyruvate Kinase M (PKM) binds ribosomes in a poly-ADP ribosylation dependent manner to induce translational stalling *Nucleic acids research* 2023-05-24 [PMID: 37224531] (Western Blot, Human)
- Zhao Y, Zhao H, Zhang D et al. YTHDF3 Facilitates eIF2AK2 and eIF3A Recruitment on mRNAs to Regulate Translational Processes in Oxaliplatin-Resistant Colorectal Cancer *ACS chemical biology* 2022-06-15 [PMID: 35708211]
- Gong C, Krupka JA, Gao J Et al. Sequential inverse dysregulation of the RNA helicases DDX3X and DDX3Y facilitates MYC-driven lymphomagenesis *Molecular cell* 2021-08-18 [PMID: 34437837] (WB, Human)
- Lin Y, Li F, Huang L et al. eIF3 Associates with 80S Ribosomes to Promote Translation Elongation, Mitochondrial Homeostasis, and Muscle Health *Mol. Cell* 2020-08-20 [PMID: 32589965] (WB)
- Lin Y, Li F, Huang L et al. eIF3 promotes early translation elongation to ensure mitochondrial homeostasis and skeletal muscle health *bioRxiv* 1905-07-11 (WB, Human)
- Jeong SJ, Park S, Nguyen LT et al. A threonyl-tRNA synthetase-mediated translation initiation machinery *Nat Commun* 2019-03-22 [PMID: 30902983] (WB, Human)
- Toompuu M, Karblane K, Pata P et al. ABCE1 is essential for S phase progression in human cells. *Cell Cycle*. 2016-03-17 [PMID: 26985706] (WB, Human)
- Lee AS, Kranzusch PJ, Cate JH. eIF3 targets cell-proliferation messenger RNAs for translational activation or repression *Nature* 2015-04-06 [PMID: 25849773] (WB, Human)
- Chazal PE, Daguenet E, Wendling C et al. EJC core component MLN51 interacts with eIF3 and activates translation *Proc Natl Acad Sci U S A* 2013-03-25 [PMID: 23530232] (WB, Human)





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General: novus@novusbio.com

### **Products Related to NBP1-18891**

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-84876PEP	EIF3A Recombinant Protein Antigen

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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