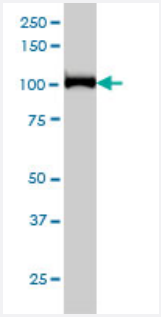
CNOT3 monoclonal antibody (M01), clone 4B8

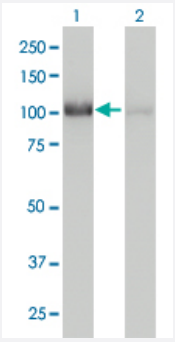
Catalog # H00004849-M01 Size 100 ug

Applications



Western Blot (Cell lysate)

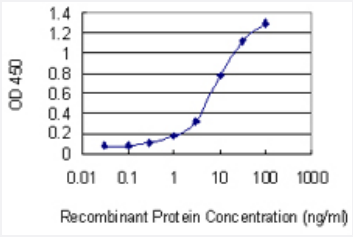
CNOT3 monoclonal antibody (M01), clone 4B8 Western Blot analysis of CNOT3 expression in Hela S3 NE (Cat # L013V3).



Western Blot (Transfected lysate)

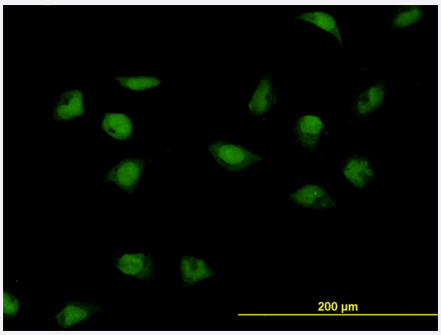
Western Blot analysis of CNOT3 expression in transfected 293T cell line by CNOT3 monoclonal antibody (M01), clone 4B8.

Lane 1: CNOT3 transfected lysate(82 KDa).
Lane 2: Non-transfected lysate.



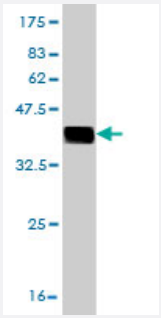
Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged CNOT3 is 0.3 ng/ml as a capture antibody.



Immunofluorescence

Immunofluorescence of monoclonal antibody to CNOT3 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot detection against Immunogen (36.74 KDa) .

Specification

Product Description	Mouse monoclonal antibody raised against a partial recombinant CNOT3.
Immunogen	CNOT3 (NP_055331, 1 a.a. ~ 100 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	MADKRKLQGEIDRCLKKVSEGVEQFEDIWQKLHNAANANQKEKYEADLKKEIKKLQRLRDQIKTW VASNEIKDKRQLIDNRKLIETQMERFKVVERETKT
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Mouse (99); Rat (99)
Isotype	IgG1 Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

  CNOT3 monoclonal antibody (M01), clone 4B8 Western Blot analysis of CNOT3 expression in Hela S3 NE (Cat # L013V3).

  Protocol Download

- Western Blot (Transfected lysate)

  Western Blot analysis of CNOT3 expression in transfected 293T cell line by CNOT3 monoclonal antibody (M01), clone 4B8.

  Lane 1: CNOT3 transfected lysate(82 KDa).
  Lane 2: Non-transfected lysate.

  Protocol Download

- Western Blot (Recombinant protein)

  Protocol Download

- Sandwich ELISA (Recombinant protein)

  Detection limit for recombinant GST tagged CNOT3 is 0.3 ng/ml as a capture antibody.

  Protocol Download

- ELISA

- Immunofluorescence

  Immunofluorescence of monoclonal antibody to CNOT3 on HeLa cell. [antibody concentration 10 ug/ml]

Gene Info — CNOT3

Entrez GeneID	4849
GeneBank Accession#	NM_014516
Protein Accession#	NP_055331
Gene Name	CNOT3
Gene Alias	KIAA0691, LENG2, NOT3, NOT3H
Gene Description	CCR4-NOT transcription complex, subunit 3

Omim ID	604910
Gene Ontology	Hyperlink
Gene Summary	O
Other Designations	NOT3 (negative regulator of transcription 3, yeast) homolog

Publication Reference

- Dissecting the Role of the Ccr4-Not Deadenylase Complex in Pluripotency and Differentiation.

  Xiukun Wang, Qing Chen, Brad Lackford, Guang Hu.

  Methods in Molecular Biology (Clifton, N.J.) 2024 N/A; 2723:125.

  Application: WB, Mouse, Mouse embryonic stem cell

- Specific recognition and ubiquitination of translating ribosomes by mammalian CCR4-NOT.

  Eva Absmeier, Viswanathan Chandrasekaran, Francis J O'Reilly, James A W Stowell, Juri Rappsilber, Lori A Passmore.

  Nature Structural & Molecular Biology 2023 Sep; 30(9):1314.

  Application: WB, Bacteria, Escherichia coli

- Mechanism of ribosome-associated mRNA degradation during tubulin autoregulation.

  Markus Höpfler, Eva Absmeier, Sew-Yeu Peak-Chew, Evangelia Vartholomaiou, Lori A Passmore, Ivana Gasic, Ramanujan S Hegde.

  Molecular Cell 2023 Jul; 83(13):2290.

  Application: WB-Tr, Human, HEK T-Rex cells

- CNOT3 targets negative cell cycle regulators in non-small cell lung cancer development.

  Shirai YT, Mizutani A, Nishijima S, Horie M, Kikuguchi C, Elisseeva O, Yamamoto T.

  Oncogene 2018 Dec; [Epub].

  Application: WB, Human, A-549 cells

- The CCR4-NOT deadenylase complex controls Atg7-dependent cell death and heart function.

  Yamaguchi T, Suzuki T, Sato T, Takahashi A, Watanabe H, Kadowaki A, Natsui M, Inagaki H, Arakawa S, Nakaoka S, Koizumi Y, Seki S, Adachi S, Fukao A, Fujiwara T, Natsume T, Kimura A, Komatsu M, Shimizu S, Ito H, Suzuki Y, Penninger JM, Yamamoto T, Imai Y, Kuba K.

  Science Signaling 2018 Feb; 11(516).

  Application: IP, WB, Mouse, Cardiomyocytes

- CNOT3-Dependent mRNA Deadenylation Safeguards the Pluripotent State.

  Zheng X, Yang P, Lackford B, Bennett BD, Wang L, Li H, Wang Y, Miao Y, Foley JF, Fargo DC, Jin Y, Williams CJ, Jothi R, Hu G.

  Stem Cell Reports 2016 Oct; 7(5):897.

  Application: WB, IF, Mouse, Mouse embryo

- CNOT3 contributes to early B cell development by controlling Igh rearrangement and p53 mRNA stability.

  Inoue T, Morita M, Hijikata A, Fukuda-Yuzawa Y, Adachi S, Isono K, Ikawa T, Kawamoto H, Koseki H, Natsume T, Fukao T, Ohara O, Yamamoto T, Kurosaki T.

  The journal of Experimental Medicine 2015 Aug; 212(9):1465.

  Application: IF, IP, WB-Ce, Mouse, Bone marrow cells(pre-pro-B, pro-B, pre-B, immature B), recirculating B cells

- Identification of Ccr4-Not complex components as regulators of transition from partial to genuine induced pluripotent stem cells.

  Kamon M, Katano M, Hiraki-Kamon K, Hishida T, Nakachi Y, Mizuno Y, Okazaki Y, Suzuki A, Hirasaki M, Ueda A, Nishimoto M, Kato H, Okuda A.

  Stem Cells and Development 2014 Sep; 23(18):2170.

  Application: WB-Tr, Mouse, iPSCs

- The anti-proliferative activity of BTG/TOB proteins is mediated via the Caf1a (CNOT7) and Caf1b (CNOT8) deadenylase subunits of the Ccr4-not complex.

  Doidge R, Mittal S, Aslam A, Winkler GS.

  PLoS One 2012 Dec; 7(12):e51331.

  Application: WB-Tr, Human, MCF-7 cells

- The Ccr4-not deadenylase subunits CNOT7 and CNOT8 have overlapping roles and modulate cell proliferation.

  Aslam A, Mittal S, Koch F, Andrau JC, Winkler GS.

  Molecular Biology of the Cell 2009 Sep; 20(17):3840.

  Application: WB-Tr, Human, HEK 293T cells

Pathway

- RNA degradation