

Mouse MCM2 Monoclonal Antibody | anti-MCM2 antibody

MOUSE ANTI HUMAN MCM2

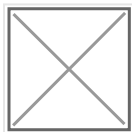
CATALOG #	HOST	APPLICATIONS
AAA49305	Mouse	Western Blot, Immunohistochemistry, Immunohistochemistry

PRODUCT SYNONYMS

MCM2; Monoclonal Antibody; MOUSE ANTI HUMAN MCM2; anti-MCM2 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Number	CRCT2.1
Form/Format	Purified Purified IgG - liquid
Concentration	IgG concentration 1.0mg/ml (varies by lot)
Sequence Length	904
Applicable Applications for anti-MCM2 antibody	WB (Western Blot), IHC (Immunohistochemistry), IHC (Immunohistochemistry)
Perservative Stabilisers	0.09% Sodium Azide Preparation
Histology Positive Control Tissue	Tonsil, any tissue with high proliferative index Buffer Solution
Target Species	Human
Preparation and Storage	Store at 4 degree C or at -20 degree C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. Shelf Life: 18 months from date of despatch.



Application Data

Published customer imageCharacterization of pSer40/41MCM2 antibody. A) HeLa whole cell extract was incubated with Lambda phosphatase in the presence or absence of phosphatase inhibitors. Proteins were analyzed by western blot with the indicated antibodies. B) Equal amounts of protein extract were separated on a single SDS-PAGE gel and transferred onto membranes. Vertical slices of membrane (each with identical protein content) were then incubated with anti-pSer40/41MCM2 antibody in the presence of the indicated competitor peptides (upper panels). Membranes were then re-probed with an anti-MCM2 antibody (lower panels). Identical exposures are shown. C) HeLa cells growing on coverslips were fixed and stained with anti-pSer40/41MCM2 antibody in the presence of the indicated competitor peptides. DNA was counterstained with DAPI. D) Serial sections of normal and cancerous colon tissue were used in IHC with the pSer40/41MCM2 antibody in the presence or absence of competitor peptide. Nuclear positivity is shown by brown color. E) HeLa cells were treated with PHA-767491 for the indicated time. Protein extracts were prepared and analysed by western blot with the indicated antibodies.From: FitzGerald J, Murillo LS, O'Brien G, O'Connell E, O'Connor A, et al. (2014) A High Through-Put Screen for Small Molecules Modulating MCM2 Phosphorylation Identifies Ryuvidine as an Inducer of the DNA Damage Response. PLoS ONE 9(6): e98891.



Application Data

Paraffin embedded human tonsil stained with Mouse anti Human MCM2 following citrate antigen retrieval



Application Data

Published customer image: Ryuvidine and Mitoxantrone reduce CDC7 levels and pSer40/41 MCM2 phosphorylation. A) Molecular structure of PHA-767491, Ryuvidine and Mitoxantrone. B) HeLa cells were incubated with either CDC7 inhibitor PHA-767491, Ryuvidine or Mitoxantrone at 10 micromolar each for the indicated time. Protein extracts were prepared and analyzed by western blot with the indicated antibodies. C) Levels of Cdc7-independent pSer41MCM2 and Cdc7-dependent pSer40/41MCM2 phosphorylation assessed in HeLa cells treated with the indicated concentration of PHA-767491, Ryuvidine or Mitoxantrone. D) Cells were incubated with either PHA-767491, Ryuvidine or Mitoxantrone at the indicated concentration for nine hours. Protein extracts were then prepared and analyzed by western blot with the indicated antibodies. E) HeLa cells incubated with either PHA-767491, Ryuvidine or Mitoxantrone at 10 micromolar each for nine hours in the presence or absence of 20 micromolar of caspase inhibitor Boc-D-fmk. Levels of Ser40/41MCM2 phosphorylation, CDC7 and MCM2 abundance as well as PARP cleavage, were assessed by western blotting.From: FitzGerald J, Murillo LS, O'Brien G, O'Connell E, O'Connor A, et al. (2014) A High Through-Put Screen for Small Molecules Modulating MCM2 Phosphorylation Identifies Ryuvidine as an Inducer of the DNA Damage Response. PLoS ONE 9(6): e98891.



Application Data

Published customer image: Confirmation and in vitro characterization of Hit compounds. A) HeLa cells were treated with the ten compounds that produced the strongest reduction in pSer40/41MCM2 levels in the primary screen. Protein extracts were prepared and levels of residual pSer40/41MCM2 phosphorylation were measured by western blot analysis with the indicated antibodies. B) The same compounds were tested for their ability to inhibit CDC7 kinase activity in in vitro kinase assay. Kinase reactions were performed on a synthetic MCM2 substrate in the absence or presence of the indicated drug and reactions were run on SDS-PAGE gels. CDC7 activity on the synthetic MCM2 substrate was monitored by Western blotting with an anti-pSer108MCM2 antibody. As a control the levels of CDC7 kinase and synthetic MCM2 substrate present in each reaction were also assessed and shown to be similar in all reactions.From: FitzGerald J, Murillo LS, O'Brien G, O'Connell E, O'Connor A, et al. (2014) A High Through-Put Screen for Small Molecules Modulating MCM2 Phosphorylation Identifies Ryuvidine as an Inducer of the DNA Damage Response. PLoS ONE 9(6): e98891.

ADDITIONAL INFORMATION

Related Product Information for anti-MCM2 antibody	Mouse anti Human MCM2 antibody, clone CRCT2.1 recognizes human DNA replication licensing factor MCM2, also known as Mcm2, Nuclear protein BM28 or mini chromosome maintenance protein-2. Mcm-2 is a 904 amino acid ~125kDa nuclear protein involved in the control of DNA replication. Mouse anti Human MCM2 antibody, clone CRCT2.1 has been used successfully for the detection of human MCM2 in ovarian adenocarcinoma by immunohistochemistry on formalin fixed, paraffin embedded tissues (Gakiopoulou et al. 2007).
--	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	33356547
NCBI GeneID	4171
NCBI Accession #	NP_004517.2
NCBI GenBank Nucleotide #	NM_004526.3
UniProt Accession #	P49736; Q14577; Q15023; Q8N2V1; Q969W7; Q96AE1; Q9BRM7

Molecular Weight	101,896 Da
NCBI Official Full Name	DNA replication licensing factor MCM2
NCBI Official Synonym Full Names	minichromosome maintenance complex component 2
NCBI Official Symbol	MCM2
NCBI Official Synonym Symbols	BM28; CCNL1; CDCL1; cdc19; D3S3194; MITOTIN
NCBI Protein Information	DNA replication licensing factor MCM2; MCM2 minichromosome maintenance deficient 2, mitotin; cell division cycle-like 1; cyclin-like 1; minichromosome maintenance deficient 2 (mitotin); minichromosome maintenance protein 2 homolog; nuclear protein BM28
UniProt Protein Name	DNA replication licensing factor MCM2
UniProt Gene Name	MCM2
UniProt Synonym Gene Names	BM28; CCNL1; CDCL1; KIAA0030
UniProt Entry Name	MCM2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/mcm2-antibody-clone-crct2-1-western-blot-immunohistochemistry-immunohistochemistry-elisa/49305>