

Product Name: KD-Validated MCM6 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA01805**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 92.9kDa

Antigen Information

Gene Name	MCM6
Alternative Names	MCM6; Minichromosome Maintenance Complex Component 6; Minichromosome Maintenance Deficient (Mis5, S. Pombe) 6; DNA Replication Licensing Factor MCM6; P105MCM; Mis5; MCM6 Minichromosome Maintenance Deficient 6 (MIS5 Homolog, S. Pombe) (S. Cerevisiae); MCM6 Minichromosome Maintenance Deficient 6 (MIS5 Homolog, S. Pombe); Minichromosome Maintenance Deficient 6 Homolog (S. Cerevisiae); MIS5 Homolog (S.Pombe); EC 3.6.4.12; MCG40308; MIS5
Gene ID	4175.0
SwissProt ID	Q14566
Immunogen	A synthesized peptide derived from human MCM6

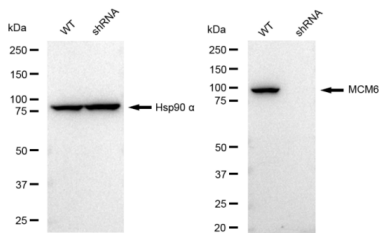
Background

The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the MCM proteins is a key component of the pre-replication complex (pre_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. The MCM complex consisting of this protein and MCM2, 4 and 7 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. The phosphorylation of the complex by CDC2 kinase reduces the helicase activity, suggesting a role in the regulation of DNA replication. Single nucleotide polymorphisms in the intron regions of this gene are associated with differential transcriptional activation of the promoter of the neighboring lactase gene and, thereby, influence lactose intolerance in early adulthood. [provided by RefSeq, May 2012]

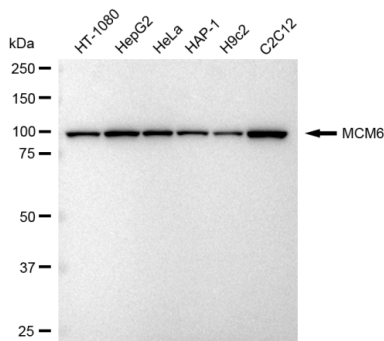
Research Area

Epigenetics and Nuclear Signaling, Epigenetics and Nuclear Signaling

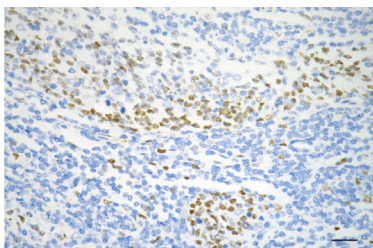
Image Data



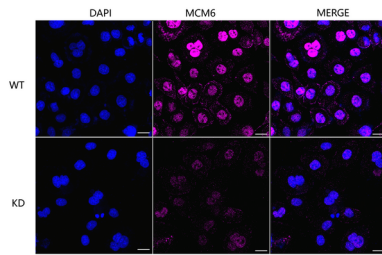
Western blotting analysis using MCM6 antibody (KVA01805). MCM6 expression in wild type (WT) and MCM6 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with MCM6 antibody (KVA01805, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



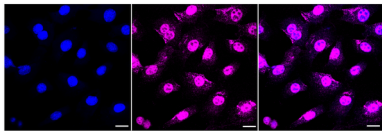
Western blotting analysis using MCM6 antibody (KVA01805). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with MCM6 antibody (KVA01805, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



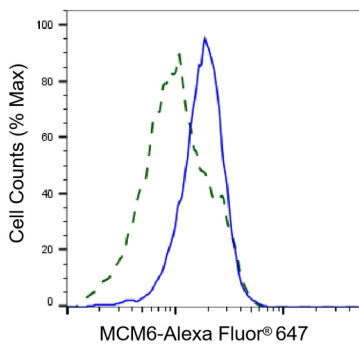
Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using MCM6 antibody (KVA01805, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



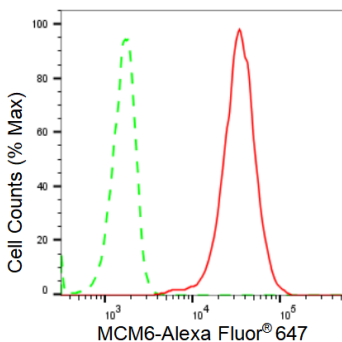
Immunocytochemical staining of HeLa cells using MCM6 antibody (KVA01805, 1:1,000), Top panel: wild-type (WT); Bottom panel: MCM6 shRNA knockdown (KD). Nuclei were stained blue with DAPI; MCM6 was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm. Permeabilization: Triton.



Immunocytochemical staining of C2C12 cells with MCM6 antibody (KVA01805, 1:1,000). Nuclei were stained blue with DAPI; MCM6 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μm.



Validation of MCM6 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with MCM6 antibody (KVA01805, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of MCM6 expression in C2C12 cells using MCM6 antibody (KVA01805, 1:2,000). Green, isotype control; red, MCM6.