Anti-MCM7 Antibody [15E1-R] - BSA and Azide free

HA610161

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB
Molecular Wt:	Predicted band size: 81 kDa
Clone number:	15E1-R

Description: Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity. Required for S-phase checkpoint activation upon UV-induced damage. Early fractionation of eukaryotic MCM proteins yielded a variety of dimeric, trimeric and tetrameric complexes with unclear biological significance. Specifically a MCM467 subcomplex is shown to have in vitro helicase activity which is inhibited by the MCM2 subunit. The MCM2-7 hexamer is the proposed physiological active complex.

Immunogen: Recombinant protein within Human MCM7 aa 516-719 / 719.

Positive control: HL-60 cell lysate, HEK-293 cell lysate, HeLa cell lysate, Jurkat cell lysate, SW480 cell lysate, LNCaP cell lysate, NIH/3T3 cell lysate, C2C12 cell lysate, PC-12 cell lysate, COS-1 cell lysate.

Subcellular location: Nucleus.

Database links: SwissProt: P33993 Human | Q61881 Mouse
Entrez Gene: 288532 Rat

Recommended Dilutions:

WB	1:1,000

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

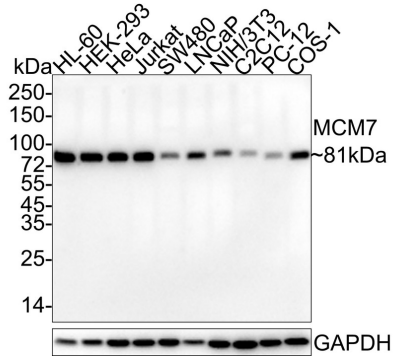

Fig1: Western blot analysis of MCM7 on different lysates with Mouse anti-MCM7 antibody (HA610161) at 1/1,000 dilution.

Lane 1: HL-60 cell lysate
Lane 2: HEK-293 cell lysate
Lane 3: HeLa cell lysate
Lane 4: Jurkat cell lysate
Lane 5: SW480 cell lysate
Lane 6: LNCaP cell lysate
Lane 7: NIH/3T3 cell lysate
Lane 8: C2C12 cell lysate
Lane 9: PC-12 cell lysate
Lane 10: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 81 kDa
Observed band size: 81 kDa

Exposure time: 1 minute 55 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610161) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Hallén T et al. MCM7 as a marker of postsurgical progression in non-functioning pituitary adenomas. Eur J Endocrinol. 2021 Apr
2. Ravindran E et al. Homozygous mutation in MCM7 causes autosomal recessive primary microcephaly and intellectual disability. J Med Genet. 2022 May