Data Sheet (Cat.No.TMAC-02498)

Anti-MCM3 Antibody (3T338)

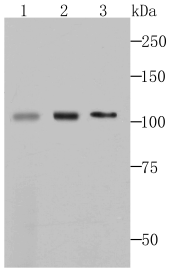
Product Details

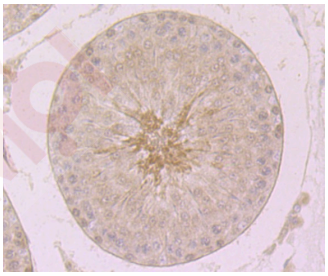
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 102 kDa.
Clone:	3T338
Purification:	ProA affinity purified

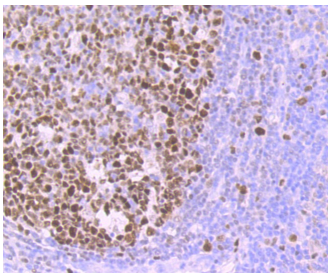
Applications

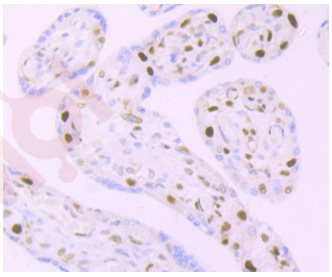
Verified Activity:

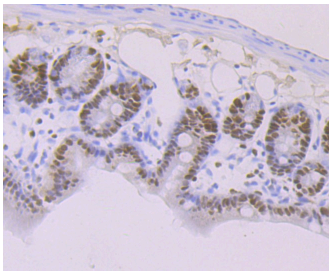
1. Western blot analysis of MCM3 on mouse thymus tissue (1), NIH-3T3 cell (2) and Hela (3)cell lysates using anti-MCM3 antibody at 1/500 dilution.
2. Immunohistochemical analysis of paraffin-embedded rat testis tissue using anti-MCM3 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-MCM3 antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded human placenta tissue using anti-MCM3 antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded mouse small intestine tissue using anti-MCM3 antibody. Counter stained with hematoxylin.
6. ICC staining MCM3 in 293T cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
7. ICC staining MCM3 in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
8. ICC staining MCM3 in SH-SY-5Y cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
9. Flow cytometric analysis of K562 cells with MCM3 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

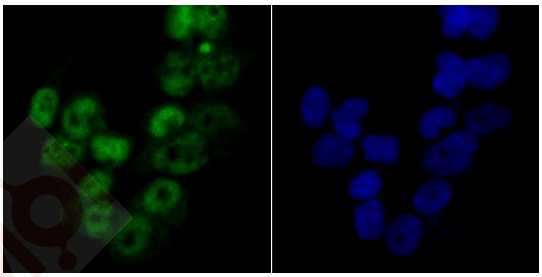


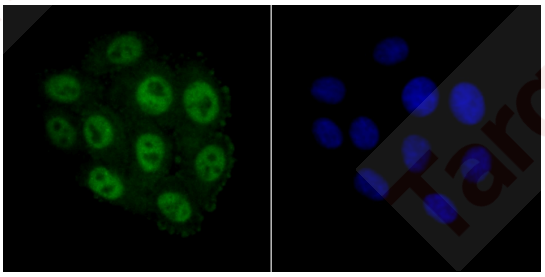


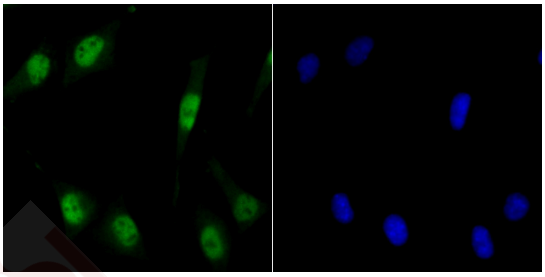


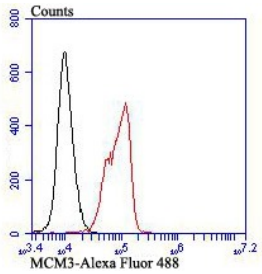












Application: FCM,ICC,IF,IHC,WB

Recommended: WB: 1:500-1000; IHC: 1:50-200; ICC: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P25205

Synonyms: RLF subunit beta;DNA polymerase alpha holoenzyme associated protein P1;Minichromosome maintenance deficient 3;DNA polymerase alpha holoenzyme associated P1;hRlf beta subunit; p102;MGC1157;Replication licensing factor beta subunit;P1.h;DNA replication factor MCM3; Human cervical cancer proto oncogene 5;MCM3 minichromosome maintenance deficient 3;HCC 5;HCC5;MCM 3;RLF beta subunit;MCM3_HUMAN;DNA polymerase alpha holoenzyme-associated protein P1;P1 h;Minichromosome maintenance protein 3;P1-MCM3;P1 Protein;P102 protein;RLFB;DNA replication licensing factor mcm3;mcm3;Cervical cancer proto oncogene 5; P1 MCM3;Minichromosome maintenance complex component 3

Research Background

The mini-chromosome maintenance (MCM) family of proteins, including MCM2, MCM3, MCM4 (Cdc21), MCM5 (Cdc46), MCM6 (Mis5) and MCM7 (Cdc47), are regulators of DNA replication that act to ensure replication occurs only once in the cell cycle. Expression of MCM proteins increases during cell growth, peaking at G1 to S phase. The MCM proteins each contain an ATP-binding motif, which is predicted to mediate ATP-dependent opening of double-stranded DNA. MCM proteins are regulated by E2F transcription factors, which induce MCM expression, and by protein kinases, which interact with MCM proteins to maintain the postreplicative state of the cell. MCM2/MCM4 complexes function as substrates for Cdc2/cyclin B in vitro. Cleavage of MCM3, which can be prevented by caspase inhibitors, results in the inactivation during apoptosis of the MCM complex, which is composed of, at least, MCM2?C6. A complex composed of MCM4, MCM6 and MCM7 has been shown to be involved in DNA helicase activity, and MCM5 is involved in IFN-γ-induced Stat1α transcription activation.

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