

## Basic Information

<b>Product Name</b>	Anti-MCM6 Antibody (Clone#3I4C8)	
<b>Gene Name</b>	MCM6	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, ICC/IF, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human MCM6 recombinant protein (Position: Q14-D821).	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	105 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

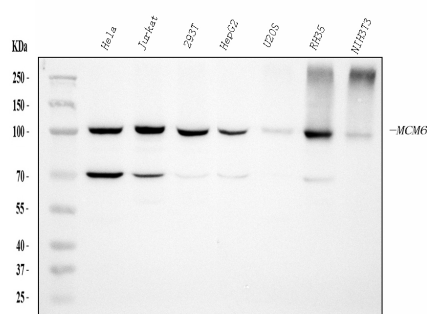
12 months from date of receipt, -20°C as supplied.

## Background Information

MCM6(Minichromosome maintenance, *s. pombe*, homolog of, 6) is a protein that in humans is encoded by the MCM6 gene. MCM6 is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The MCM genes were originally identified in yeast defective in minichromosome maintenance and have since been shown to play roles in the progression of the cell cycle; many are cell division control genes. The MCM6 gene is mapped on 2q21.3. Mcm 6 has recently been shown to interact strongly Cdt1 at defined residues, by mutating these target residues Wei et al. observed lack of Cdt1 recruitment of Mcm2-7 to the pre-RC. An approximately 200-kb region surrounding the C/T(-13910) polymorphism in MCM6 intron 13 functioned

as an enhancer of the lactase gene promoter in intestinal cell culture.

## Selected Validation Data



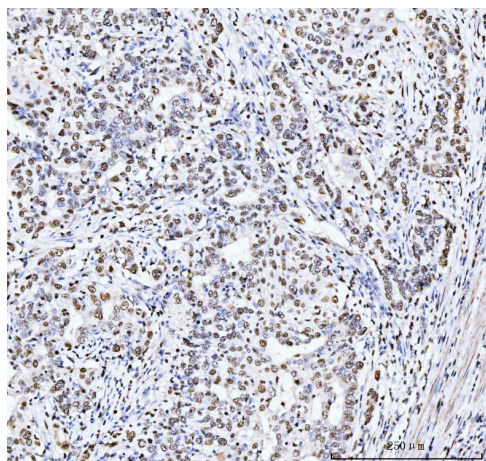
Western blot analysis of MCM6 using anti-MCM6 antibody

(M02755-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HeLa whole cell lysates,  
Lane 2: Jurkat whole cell lysates,  
Lane 3: 293T whole cell lysates,  
Lane 4: HepG2 whole cell lysates,  
Lane 5: U2OS whole cell lysates,  
Lane 6: RH35 whole cell lysates,  
Lane 7: NIH/3T3 whole cell lysates.

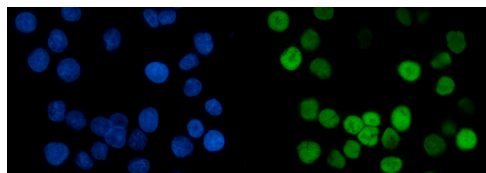
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with mouse anti-MCM6 antigen affinity purified monoclonal antibody (M02755-1) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for MCM6 at approximately 105 kDa. The expected band size for MCM6 is at 93 kDa.

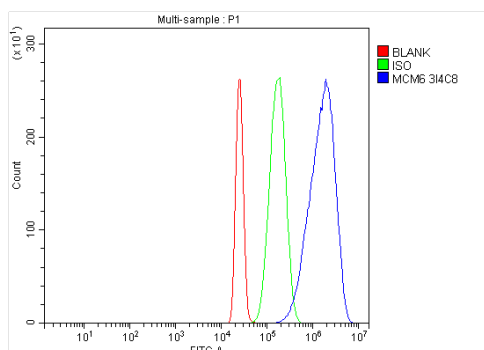


IHC analysis of MCM6 using anti-MCM6 antibody (M02755-1).

MCM6 was detected in a paraffin-embedded section of human Metaplasia of squamous cells of the renal pelvis tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-MCM6 Antibody (M02755-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of MCM6 using anti-MCM6 antibody (M02755-1). MCM6 was detected in an immunocytochemical section of Caco-2 cells. The section was incubated with mouse anti-MCM6 Antibody (M02755-1) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of HL-60 cells using anti-MCM6 antibody (M02755-1).

Overlay histogram showing HL-60 cells stained with M02755-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-MCM6 Antibody (M02755-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.