

For Research Use Only

# MCM2 Recombinant antibody, PBS Only (Capture)

Catalog Number: 84511-2-PBS



## Basic Information

<b>Catalog Number:</b> 84511-2-PBS	<b>GenBank Accession Number:</b> BC007670	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 4171	<b>CloneNo.:</b> 241968D3
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P49736	
<b>Isotype:</b> IgG	<b>Full Name:</b> minichromosome maintenance complex component 2	
<b>Immunogen Catalog Number:</b> AG0798	<b>Calculated MW:</b> 102 kDa	
	<b>Observed MW:</b> 116-125 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, FC (Intra), Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human

## Product Information

84511-2-PBS targets MCM2 as part of a matched antibody pair:

MP01392-1: 84511-2-PBS capture and 84511-1-PBS detection (validated in Cytometric bead array)

MP01392-2: 84511-2-PBS capture and 84511-3-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

The MCM2-7 complex forms the core of the replicative helicase which acts as the molecular motor that uses ATP binding and hydrolysis to fuel the unwinding of double-stranded DNA at the replication fork in eukaryotes. This complex is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. MCM2, also named CDCL1 and BM28, is a human nuclear protein that plays an important role in 2 crucial steps of the cell cycle, namely, onset of DNA replication and cell division.

## Storage

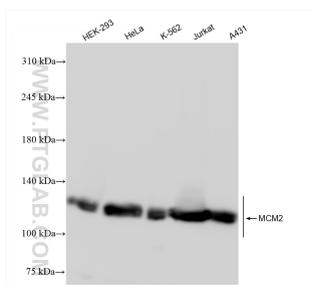
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

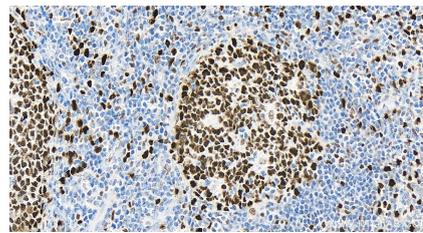
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)      E: proteintech@ptglab.com  
W: ptglab.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

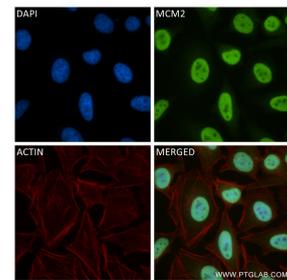
## Selected Validation Data



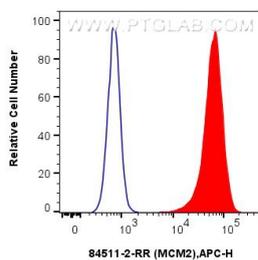
Various lysates were subjected to SDS PAGE followed by western blot with 84511-2-RR (MCM2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 84511-2-PBS in a different storage buffer formulation.



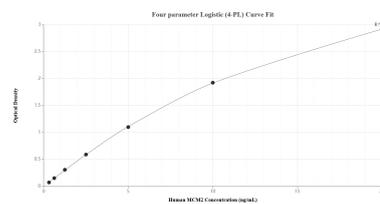
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 84511-2-RR (MCM2 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 84511-2-PBS in a different storage buffer formulation.



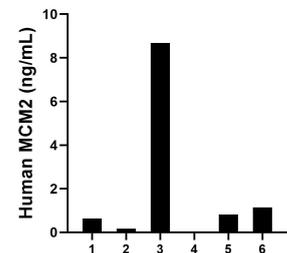
Immunofluorescent analysis of (4% PFA) fixed HeLa cells using MCM2 antibody (84511-2-RR, Clone: 241968D3 ) at dilution of 1:500 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 84511-2-PBS in a different storage buffer formulation.



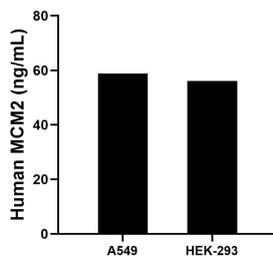
$1 \times 10^6$  HeLa cells were intracellularly stained with 0.25 ug MCM2 Recombinant antibody (84511-2-RR, Clone:241968D3) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Rabbit IgG Isotype Control Recombinant Antibody (98136-1-RR, Clone: 240953C9) (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set. This data was developed using the same antibody clone with 84511-2-PBS in a different storage buffer formulation.



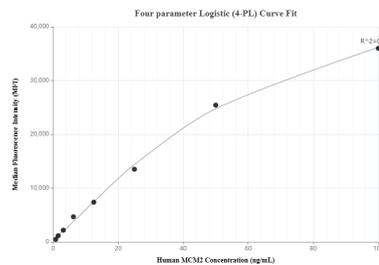
Sandwich ELISA standard curve of MP01392-2, Human MCM2 Recombinant Matched Antibody Pair - PBS only. 84511-2-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag0798. 84511-3-PBS was HRP conjugated as the detection antibody. Range: 0.313-20 ng/mL



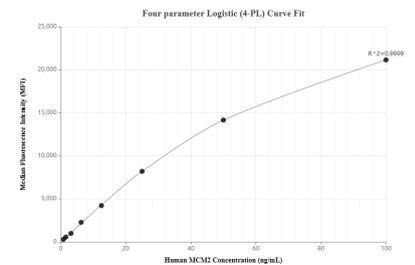
Serum of six individual healthy human donors was measured. The MCM2 concentration of detected samples was determined to be 2.29 ng/mL with a range of ND-8.68 ng/mL.



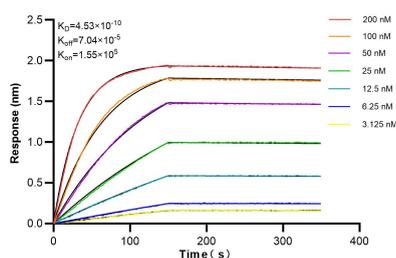
The mean MCM2 concentration was determined to be 58.85 ng/mL in A549 cell extract based on a 2.70 mg/mL extract load and 56.17 ng/mL in HEK-293 cell extract based on a 3.30 mg/mL extract load.



Cytometric bead array standard curve of MP01392-1, MCM2 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 84511-2-PBS. Detection antibody: 84511-1-PBS. Standard: Ag0798. Range: 0.781-100 ng/mL



Cytometric bead array standard curve of MP01392-2, MCM2 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 84511-2-PBS. Detection antibody: 84511-3-PBS. Standard: Ag0798. Range: 0.781-100 ng/mL



Biolayer interferometry (BLI) kinetic assays of 84511-2-RR against Human MCM2 were performed. The affinity constant is 0.453 nM.