ARG40474
anti-MCM3 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes MCM3
Tested Reactivity	Hu, Ms, Rat, Hm
Tested Application	FACS, WB
Host	Mouse
Clonality	Monoclonal
Clone	1593CT377.41.73
Isotype	IgG1, kappa
Target Name	MCM3
Species	Human
Immunogen	Recombinant protein of Human MCM3.
Conjugation	Un-conjugated
Alternate Names	DNA polymerase alpha holoenzyme-associated protein P1; RLF subunit beta; P1.h; HCC5; DNA replication licensing factor MCM3; p102; EC 3.6.4.12; P1-MCM3; RLFB

Application Instructions

Application table

Application	Dilution
FACS	1:25
WB	1:4000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	NIH/3T3
Observed Size	~ 100 kDa

Properties

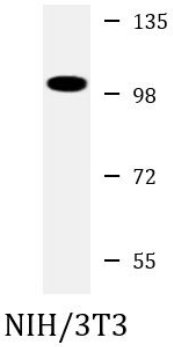
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

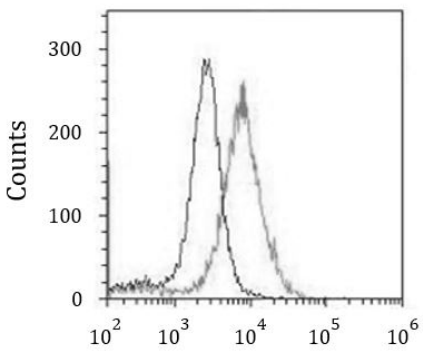
Gene Symbol	MCM3
Gene Full Name	minichromosome maintenance complex component 3
Background	The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by 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. This protein is a subunit of the protein complex that consists of MCM2-7. It has been shown to interact directly with MCM5/CDC46. This protein also interacts with and is acetylated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progression. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2012]
Function	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 DNA replication and cell proliferation. [UniProt]
Calculated Mw	91 kDa
PTM	O-glycosylated (O-GlcNAcylated), in a cell cycle-dependent manner. [UniProt]
Cellular Localization	Nucleus. [UniProt]

Images



ARG40474 anti-MCM3 antibody WB image

Western blot: 20 µg of NIH/3T3 whole cell lysate stained with ARG40474 anti-MCM3 antibody at 1:4000 dilution.



ARG40474 anti-MCM3 antibody FACS image

Flow Cytometry: HeLa cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% BSA to block non-specific protein-protein interactions followed by ARG40474 anti-MCM3 antibody (right histogram) at 1:25, 60 min at 37°C, followed by incubation with DyLight®488 labelled secondary antibody. Isotype control antibody (left histogram) was Mouse IgG1 (1 µg/10^6 cells) used under the same conditions. Acquisition of > 10000 events was performed.