

Product datasheet for **TA326905**

MCM3 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IP, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human MCM3
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	minichromosome maintenance complex component 3
Database Link:	NP_002379 Entrez Gene 17215 Mouse Entrez Gene 316273 Rat Entrez Gene 4172 Human P25205



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Background:

The minichromosome maintenance (MCM) 2-7 proteins are a family of six related proteins required for the initiation and elongation of DNA replication. MCM2-7 bind together to form the heterohexameric MCM complex that is thought to act as a replicative helicase at the DNA replication fork. This complex is also a key component of the pre-replication complex (pre-RC). Cdc6 and CDT1 recruit the MCM complex to the origin recognition complex (ORC) during late mitosis/early G1 phase forming the pre-RC and licensing the DNA for replication. Phosphorylation of the MCM2, MCM3, MCM4, and MCM6 subunits appears to regulate MCM complex activity and the initiation of DNA synthesis. MCM proteins are removed during DNA replication, causing chromatin to become unlicensed through inhibition of pre-RC reformation. Licensing of the chromatin permits the DNA to replicate only once per cell cycle, thereby helping to ensure that genetic alterations and malignant cell growth do not occur. Studies have shown that the MCM complex is involved in checkpoint control by protecting the structure of the replication fork and assisting in restarting replication by recruiting checkpoint proteins after arrest.

Synonyms:

HCC5; P1-MCM3; P1.h; RLFB

Protein Families:

Druggable Genome, Stem cell - Pluripotency, Transcription Factors

Protein Pathways:

Cell cycle, DNA replication