



## Rabbit Anti-phospho-MDC1 (Thr4) antibody

SL18742R

<b>Product Name:</b>	phospho-MDC1 (Thr4)
<b>Chinese Name:</b>	磷酸化DNA损伤关卡蛋白1抗体
<b>Alias:</b>	MDC1 (phospho T4); p-MDC1 (phospho T4); DKFZp781A0122; Homologue to Drosophila photoreceptor protein calphotin; KIAA0170; KIAA0170; MDC 1; Mdc1; MDC1_HUMAN; Mediation of DNA damage checkpoint 1; Mediator of DNA damage checkpoint 1; Mediator of DNA Damage Checkpoint Protein 1; Mediator of DNA Damage Checkpoint Protein 1; NFBD 1; NFBD1; NFBD1; Nuclear factor with BRCT domains 1; Nuclear Factor with BRCT Domains Protein 1; Nuclear Factor with BRCT Domains Protein 1.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	227kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthesised phosphopeptide derived from human MCSF Receptor around the phosphorylation site of Thr4:ED(p-T)QA
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**PubMed:**

[PubMed](#)

The protein encoded by this gene contains an N-terminal forkhead domain, two BRCA1 C-terminal (BRCT) motifs and a central domain with 13 repetitions of an approximately 41-amino acid sequence. The encoded protein is required to activate the intra-S phase and G2/M phase cell cycle checkpoints in response to DNA damage. This nuclear protein interacts with phosphorylated histone H2AX near sites of DNA double-strand breaks through its BRCT motifs, and facilitates recruitment of the ATM kinase and meiotic recombination 11 protein complex to DNA damage foci. [provided by RefSeq, Jul 2008]

**Function:**

Required for checkpoint mediated cell cycle arrest in response to DNA damage within both the S phase and G2/M phases of the cell cycle. May serve as a scaffold for the recruitment of DNA repair and signal transduction proteins to discrete foci of DNA damage marked by 'Ser-139' phosphorylation of histone H2AFX. Also required for downstream events subsequent to the recruitment of these proteins. These include phosphorylation and activation of the ATM, CHEK1/CHK1 and CHEK2/CHK2/CDS1 kinases, and stabilization of TP53 and apoptosis. ATM and CHEK2 may also be activated independently by a parallel pathway mediated by TP53BP1.

**Subcellular Location:**

Nucleus. Associated with chromatin. Relocalizes to discrete nuclear foci following DNA damage, this requires 'Ser-139' phosphorylation of H2AFX. Colocalizes with APTX at sites of DNA double-strand breaks.

**Tissue Specificity:**

Highly expressed in testis.

**Post-translational modifications:**

Phosphorylated upon exposure to ionizing radiation (IR), ultraviolet radiation (UV), and hydroxyurea (HU). Phosphorylation in response to IR requires ATM, NBN, and possibly CHEK2. Also phosphorylated during the G2/M phase of the cell cycle and during activation of the mitotic spindle checkpoint.

**Similarity:**

Contains 2 BRCT domains.  
Contains 1 FHA domain.

**SWISS:**

Q14676

**Gene ID:**

9656

**Database links:**

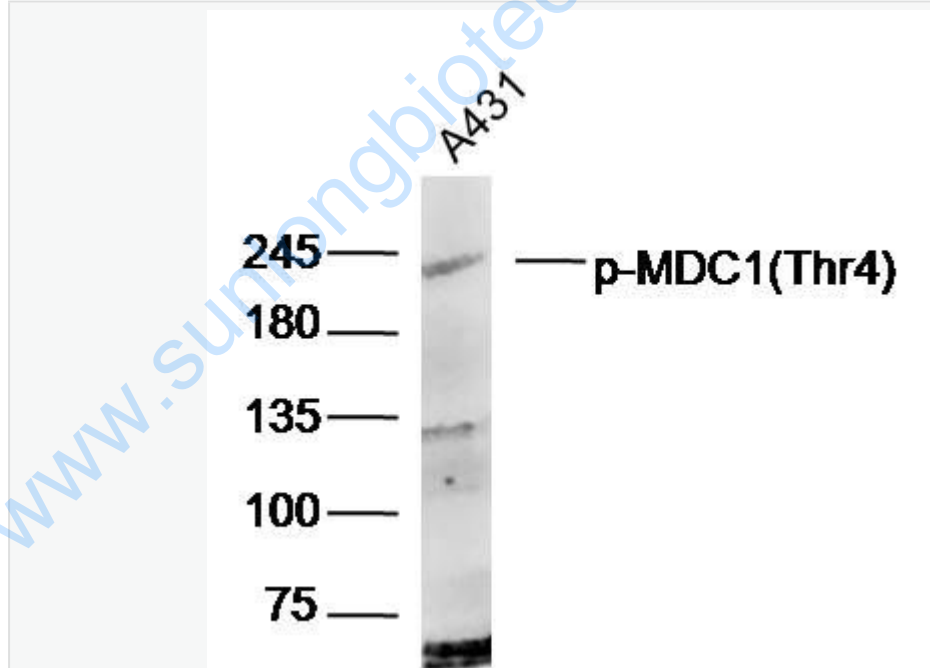
**Product Detail:**

[Entrez Gene: 9656](#) Human  
[GenBank: NP\\_055456](#) Human  
[Omim: 607593](#) Human  
[SwissProt: Q14676](#) Human  
[Unigene: 433653](#) Human  
[Unigene: 653495](#) Human

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample: A431(Human) Cell Lysate at 40 ug

Primary: Anti-p-MDC1(Thr4)(SL18742R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 227kD

	Observed band size: 227kD
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