

# **Human MDC1 Antibody**

Monoclonal Rat IgG<sub>2A</sub> Clone # 398636 Catalog Number: MAB6497

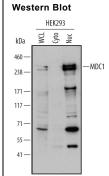
DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human MDC1 in Western blots.		
Source	Monoclonal Rat IgG <sub>2A</sub> Clone # 398636		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E.coli-derived recombinant human MDC1		
	Met1-Glu335 Accession # Q14676		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

## APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 μg/mL	See Below

#### DATA



Detection of Human MDC1 by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line. Gels were loaded with 30  $\mu g$  of whole cell lysate (WCL), 20  $\mu g$  of cytoplasmic (Cyto) and 10  $\mu g$  of nuclear extracts (Nuc). PVDF Membrane was probed with 2  $\mu g/mL$  of Human MDC1 Monoclonal Antibody (Catalog # MAB6497) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for MDC1 at approximately 250 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

PREPARATION A	AND STORAGE
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**Reconstitution** Sterile PBS to a final concentration of 0.5 mg/mL.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual

## Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
  1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

### BACKGROUND

Mediator of DNA damage checkpoint protein 1 (MDC1), also known as nuclear factor with BRCT domains protein 1 (NFBD1), is a 250 kDa nuclear protein that is required to activate the intra-S phase and G2/M phase cell cycle checkpoints in response to DNA damage. Human MDC1 is 2089 amino acids (aa) in length and contains a forkhead-associated motif at its N terminus, two BRCT motifs at its C terminus, and 13 internal repetitions of a 41 aa sequence enriched with seine, threonine, and proline residues. Splicing variants produce five isoforms of MDC1. Human MDC1 shares 49% aa sequence identity with mouse MDC1. MDC1 is highly expressed in testis.

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