

## Rabbit MDC1 Polyclonal Antibody | anti-MDC1 antibody

Anti-MDC1 antibody

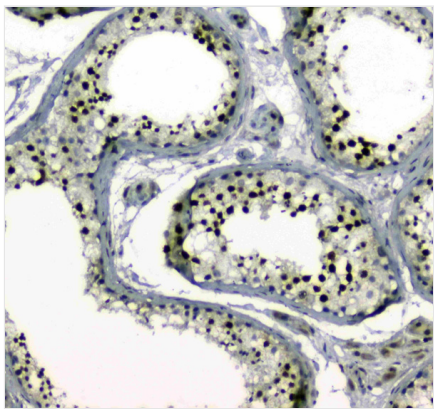
| CATALOG # | HOST   | REACTIVITY                                        | APPLICATIONS                |
|-----------|--------|---------------------------------------------------|-----------------------------|
| AAA124633 | Rabbit | Human<br>No cross reactivity with other proteins. | Immunohistochemistry, ELISA |

### PRODUCT SYNONYMS

MDC1; Polyclonal Antibody; Anti-MDC1 antibody; Mediator of DNA damage checkpoint protein 1; Nuclear factor with BRCT domains 1; KIAA0170; NFB1; anti-MDC1 antibody

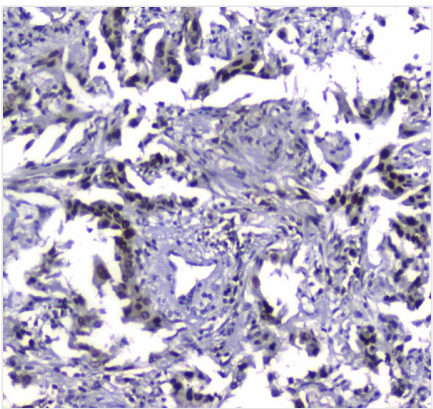
### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                            |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                                                                     |
| Reactivity                                     | Human<br>No cross reactivity with other proteins.                                                                                                                                                          |
| Clonality                                      | Polyclonal                                                                                                                                                                                                 |
| Form/Format                                    | Lyophilized                                                                                                                                                                                                |
| Sequence Length                                | 1,066                                                                                                                                                                                                      |
| Applicable Applications for anti-MDC1 antibody | IHC (Immunohistochemistry), ELISA                                                                                                                                                                          |
| Immunogen                                      | E Coli-derived human MDC1 recombinant protein (Position: A534-Q626).                                                                                                                                       |
| Subcellular Localization                       | Nucleus.                                                                                                                                                                                                   |
| Tissue Specificity                             | Highly expressed in testis.                                                                                                                                                                                |
| Reconstitution                                 | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.                                                                                                                                       |
| Contents                                       | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.                                                                                                                                  |
| Preparation and Storage                        | Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing. |



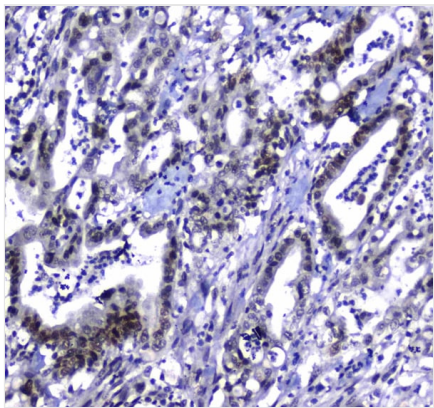
IHC (Immunohistochemistry)

Figure 3. IHC analysis of MDC1 using anti-MDC1 antibody (AAA124633).MDC1 was detected in paraffin-embedded section of human testis tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MDC1 Antibody (AAA124633) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of MDC1 using anti-MDC1 antibody (AAA124633).MDC1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MDC1 Antibody (AAA124633) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 1. IHC analysis of MDC1 using anti-MDC1 antibody (AAA124633).MDC1 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-MDC1 Antibody (AAA124633) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

ADDITIONAL INFORMATION

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-MDC1 antibody</b> | <p>Description: Mediator of DNA damage checkpoint protein 1 is a 2080 amino acid long protein that in humans is encoded by the MDC1 gene. 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.</p> <p>Protein 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 and CHEK2 kinases, and stabilization of TP53 and apoptosis. ATM and CHEK2 may also be activated independently by a parallel pathway mediated by TP53BP1.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 132626688                                                                                      |
| NCBI GeneID                      | 9656                                                                                           |
| NCBI Accession #                 | NP_055456.2                                                                                    |
| NCBI GenBank Nucleotide #        | NM_014641.2                                                                                    |
| UniProt Accession #              | Q14676; Q0EFC2; Q2L6H7; Q2TAZ4; Q5JP55; Q5JP56; Q5ST83; A2AB04; A2BF04; A2RRA8; A7YY86; B0S8A2 |
| Molecular Weight                 | 116,634 Da                                                                                     |
| NCBI Official Full Name          | mediator of DNA damage checkpoint protein 1                                                    |
| NCBI Official Synonym Full Names | mediator of DNA damage checkpoint 1                                                            |
| NCBI Official Symbol             | MDC1                                                                                           |
| NCBI Official Synonym Symbols    | NFBD1                                                                                          |
| NCBI Protein Information         | mediator of DNA damage checkpoint protein 1                                                    |
| UniProt Protein Name             | Mediator of DNA damage checkpoint protein 1                                                    |
| UniProt Gene Name                | <b>MDC1</b>                                                                                    |
| UniProt Synonym Gene Names       | KIAA0170; NFBD1                                                                                |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mdc1-antibody-immunohistochemistry-elisa/124633>