

Datasheet: AHP799

Description:	SHEEP ANTI HUMAN MDC1 (aa1883-2089)
Specificity:	MDC1 (aa1883-2089)
Other names:	MEDIATOR OF DNA DAMAGE CHECKPOINT PROTEIN 1
Format:	Serum
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/2000
Immunofluorescence	▪			1/500

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own systems using appropriate negative/positive controls.

Target Species Human

Product Form Serum - liquid

Antiserum Preparation Antisera to human MDC1 (3838) were raised by repeated immunisations of sheep with highly purified antigen.

Preservative Stabilisers 0.09% Sodium Azide

Immunogen Recombinant MDC1 BRCT domains (aa 1883 - 2089).

External Database Links

UniProt:

[Q14676](#) [Related reagents](#)

Entrez Gene:

[9656](#) MDC1 [Related reagents](#)

Synonyms	KIAA0170, NFBD1
Specificity	Sheep anti Human MDC1 antibody recognizes human Mediator of DNA damage checkpoint protein 1, also known as MDC1 or Nuclear factor with BRCT domains 1. MDC1 is a 2089 amino acid, ~250 kDa nuclear protein containing two BRCT domains and a single FHA domain. MDC1 is involved in checkpoint mediated cell cycle arrest in response to DNA damage (UniProt: Q14676)
Western Blotting	AHP799 detects 3 bands of approximately 250 kDa in HeLa and 293T cell lysates.
References	<ol style="list-style-type: none"> Goldberg, M. <i>et al.</i> (2003) MDC1 is required for the intra-S-phase DNA damage checkpoint. Nature. 421 (6926): 952-6. Lou, Z. <i>et al.</i> (2003) MDC1 is coupled to activated CHK2 in mammalian DNA damage response pathways. Nature. 421 (6926): 957-61. Shi, W. <i>et al.</i> (2008) Disassembly of MDC1 foci is controlled by ubiquitin-proteasome-dependent degradation. J Biol Chem. 283: 31608-16. Rai, R. <i>et al</i> (2008) Differential regulation of centrosome integrity by DNA damage response proteins. Cell Cycle. 7: 2225-33. Ichijima, Y. <i>et al.</i> (2011) MDC1 directs chromosome-wide silencing of the sex chromosomes in male germ cells. Genes Dev. 25: 959-71. Sin, H.S. <i>et al.</i> (2012) Human postmeiotic sex chromatin and its impact on sex chromosome evolution. Genome Res. 22: 827-36. Nakada, S. <i>et al.</i> (2008) PP4 is a gamma H2AX phosphatase required for recovery from the DNA damage checkpoint. EMBO Rep. 9: 1019-26. Nakada, S. <i>et al.</i> (2010) Non-canonical inhibition of DNA damage-dependent ubiquitination by OTUB1. Nature. 466: 941-6. Reichert, S. <i>et al.</i> (2011) Survivin inhibition and DNA double-strand break repair: A molecular mechanism to overcome radioresistance in glioblastoma Radiother Oncol. 101: 51-8. Capalbo, G. <i>et al.</i> (2010) Radiation-induced survivin nuclear accumulation is linked to DNA damage repair. Int J Radiat Oncol Biol Phys. 77 (1): 226-34. Cloutier, J.M. <i>et al.</i> (2016) Mammalian meiotic silencing exhibits sexually dimorphic features. Chromosoma. 125 (2): 215-26. Kato, Y. <i>et al.</i> (2015) FANCB is essential in the male germline and regulates H3K9 methylation on the sex chromosomes during meiosis. Hum Mol Genet. 24 (18): 5234-49.
Further Reading	1. Stewart, G.S. <i>et al.</i> (2003) MDC1 is a mediator of the mammalian DNA damage checkpoint. Nature. 421 (6926): 961-6.
Storage	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended.</p>
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10081 available at: 10081: https://www.bio-rad-antibodies.com/uploads/MSDS/10081.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Sheep IgG (H/L) (5184-2304...) [Biotin](#)

Donkey Anti Sheep IgG (STAR88...) [DyLight®488](#), [DyLight®549](#), [DyLight®649](#),
[FITC](#), [HRP](#)

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