

Product Datasheet

MDC1 Antibody - BSA Free

NB100-395

Unit Size: 100 ul

Store at 4C. Do not freeze.

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NB100-395

MDC1 Antibody - BSA Free

Product Information

Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description

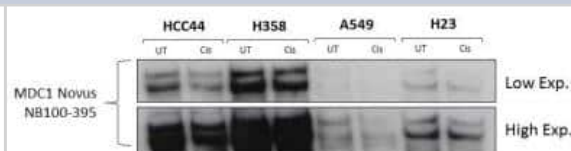
Host	Rabbit
Gene ID	9656
Gene Symbol	MDC1
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 26903517).
Immunogen	A synthetic peptide, which represented a portion of human Mediator of DNA Damage Checkpoint Protein 1 encoded within exon 5 (NP_055456.1).

Product Application Details

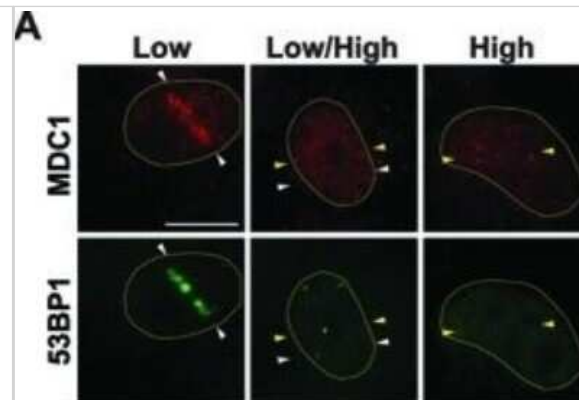
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunocytochemistry/ Immunofluorescence 1:100-1:250, Immunoprecipitation 2 - 5 ug/mg lysate
Application Notes	WB of lysates performed using standard western blot reagents and 4-8% SDS-PAGE. ICC/IF reactivity reported in (PMID: 26903517). MDC1 antibody validated for WB from a verified customer review.

Images

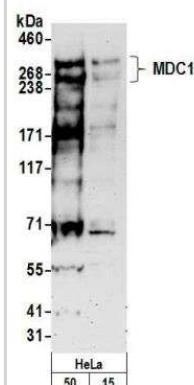
Western Blot: MDC1 Antibody [NB100-395] - Human lung cancer cell lines (UT) Untreated and (Cis) 10uM Cisplatin 16h. Image submitted by a verified customer review.



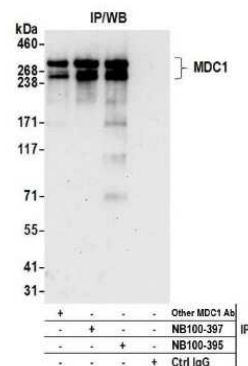
Immunocytochemistry/Immunofluorescence: MDC1 Antibody [NB100-395] - PARP activity affects 53BP1 recruitment to low-input power damage. Immunofluorescent localization of MDC1 and 53BP1 in HeLa cells irradiated with 15% (indicated by white arrowheads) and/or 30% (indicated by yellow arrowheads) at 30 min p.i. N = 10 with consistent results. Scale bar = 10 μ m. Image collected and cropped by CiteAb from the following publication (<https://academic.oup.com/nar/article-lookup/doi/10.1093/nar/gkv976>), licensed under a CC-BY license.



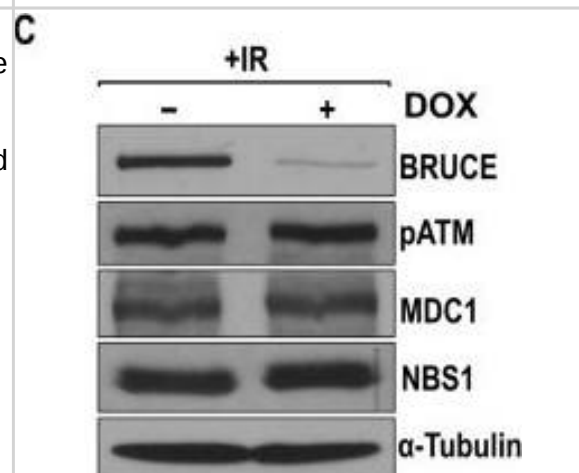
Western Blot: MDC1 Antibody [NB100-395] - Samples: Whole cell lysate (15 and 50 μ g) from HeLa cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-MDC1 antibody NB100-395 used for WB at 0.1 μ g/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.



Immunoprecipitation: MDC1 Antibody [NB100-395] - Detection of human MDC1 by western blot of immunoprecipitates. Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-MDC1 antibody NB100-395 used for IP at 3 μ g per reaction. MDC1 was also immunoprecipitated by two other rabbit anti-MDC1 antibodies. For blotting immunoprecipitated MDC1, NB100-395 was used at 0.4 μ g/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



Western Blot: MDC1 Antibody [NB100-395] - BRUCE UBC domain is required for NBS1 repair foci formation. U2OS-shBRUCE cells with stable expression of BRUCE or BRUCE mutants as indicated to the left were treated with DOX to knockdown endogenous BRUCE. After irradiation, cells were fixed & immunofluorescence stained for NBS1 (A) & quantified for cells with more than five nuclear foci (B). Bars, 10 μ m. Error bars represent standard deviation from a triplicate of a representative experiment. DOX treated shBRUCE-U2OS cells were irradiated & the cell lysates subject to immunoblotting with the indicated antibodies showing the protein levels of ATM, MDC1 & NBS1 are not reduced post BRUCE knockdown (C). Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/26683461>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Yahui Wang, Xinyi Liu, Xianbo Zuo, Cuiling Wang, Zheng Zhang, Haitao Zhang, Tao Zeng, Shunqi Chen, Mengyu Liu, Hongxia Chen, Qingfeng Song, Qi Li, Chenning Yang, Yi Le, Jinliang Xing, Hongxin Zhang, Jiaze An, Weihua Jia, Longli Kang, Hongxing Zhang, Hui Xie, Jiazhou Ye, Tianzhun Wu, Fuchu He, Xuejun Zhang, Yuanfeng Li, Gangqiao Zhou NRDE2 deficiency impairs homologous recombination repair and sensitizes hepatocellular carcinoma to PARP inhibitors *Cell Genomics* 2024-05-01 [PMID: 38697125]

Heyza JR, Mikhova M, Bahl A et al. Systematic analysis of the molecular and biophysical properties of key DNA damage response factors *eLife* 2023-06-21 [PMID: 37341699]

Schleicher EM, Dhoonmoon A, Jackson LM et al. The TIP60-ATM axis regulates replication fork stability in BRCA-deficient cells *Oncogenesis* 2022-06-18 [PMID: 35717336] (WB, Human)

Walter L, Canup B, Pujada A et al. Matrix metalloproteinase 9 (MMP9) limits reactive oxygen species (ROS) accumulation and DNA damage in colitis-associated cancer *Cell Death Dis* 2020-09-17 [PMID: 32943603] (WB, Mouse)

Saquilabon Cruz GM, Kong X, Silva BA et al. Femtosecond near-infrared laser microirradiation reveals a crucial role for PARP signaling on factor assemblies at DNA damage sites *Nucleic Acids Res* 2016-02-18 [PMID: 26424850] (ICC/IF)

Details:
Potorous tridactylis (Long-nosed Potoroo)

Bick G, Zhang F, Meetei AR, Andreassen PR. Coordination of the recruitment of the FANCD2 and PALB2 Fanconi anemia proteins by an ubiquitin signaling network. *Chromosoma* 2016-06-08 [PMID: 27277787]

Hodge CD, Ismail IH, Edwards RA et al. RNF8 E3 Ubiquitin Ligase Stimulates Ubc13 E2 Conjugating Activity That Is Essential for DNA Double Strand Break Signaling and BRCA1 Tumor Suppressor Recruitment. *J Biol Chem* 2016-04-29 [PMID: 26903517] (ICC/IF, Mouse)

Ge C, Che L, Du C. The UBC Domain Is Required for BRUCE to Promote BRIT1/MCPH1 Function in DSB Signaling and Repair Post Formation of BRUCE-USP8-BRIT1 Complex. *PLoS ONE*. 2015-12-19 [PMID: 26683461] (WB, ICC/IF, Human)

Details:
MDC1 antibody was used for ICC/IF analysis of MDC1 in experiments involving U2OS-shBRUCE cells with stable expression of BRUCE or BRUCE mutants (Fig 6A). The antibody was also used for WB on DOX treated shBRUCE-U2OS cells which were irradiated before preparation of lysates (Fig 6C).

Munch Sandra, Weidtkamp-Peters Stefanie, Klement Karolin et al. The tumor suppressor PML specifically accumulates at RPA/Rad51-containing DNA damage repair foci but is nonessential for DNA damage-induced fibroblast senescence. *Mol Cell Biol*. 2014-05-01 [PMID: 24615016]

Silva Barbara Alcaraz, Stambaugh Jessica R, Yokomori Kyoko et al. DNA damage to a single chromosome end delays anaphase onset. *J Biol Chem*. 2014-08-15 [PMID: 24982423]

Samba-Louaka A, Pereira Jm, Nahori Ma et al. *Listeria monocytogenes* Dampens the DnA Damage Response. *PLoS Pathog*. 2014-10-01 [PMID: 25340842] (ICC/IF, Human)

Greubel C, Hable V, Drexler GA et al. Competition effect in DNA damage response. *Radiat Environ Biophys* 2008-11-01 [PMID: 18648839] (ICC/IF, Human)

More publications at <http://www.novusbio.com/NB100-395>





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Products Related to NB100-395

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NB100-56657PEP	MDC1 Antibody Blocking Peptide

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