

产品名称: Phospho-MDC1 (Ser513) Rabbit Polyclonal Antibody

产品货号: APRab04989

产品概述 (Summary)

描述(Description)	Rabbit polyclonal Antibody
宿主(Host)	Rabbit
应用(Application)	IHC, ICC/IF, ELISA
种属反应(Reactivity)	Human, Rat, Mouse
偶联物(Conjugation)	Unconjugated
修饰(Modification)	Phosphorylated
同种型(Isotype)	IgG
克隆(Clonality)	Polyclonal
剂型(Form)	Liquid
保存条件(Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液(Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化 (Purification)	Affinity purification

产品应用(Application)

稀释比(Dilution Ratio) IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:5000-1:10000

分子量(Molecular Weight)

抗原信息(Antigen Information)

基因名(Gene Name)	MDC1
别名(Alternative Names)	MDC1; KIAA0170; NFB1; Mediator of DNA damage checkpoint protein 1; Nuclear factor with BRCT domains 1
基因 ID(Gene ID)	9656.0
SwissProt ID	Q14676
免疫原(Immunogen)	The antiserum was produced against synthesized peptide derived from human MDC1 around the phosphorylation site of Ser513. AA range:479-528

研究背景 (Background)

The protein encoded by this gene contains an N-terminal forkhead domain, two BRCA1 C-terminal (BRCT) motifs and a central

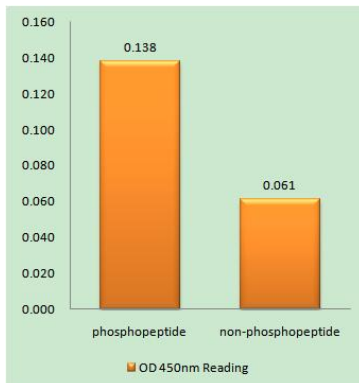
domain with 13 repetitions of an approximately 41-amino acid sequence. The encoded protein is required to activate the intra-S phase and G2/M phase cell cycle checkpoints in response to DNA damage. This nuclear protein interacts with phosphorylated histone H2AX near sites of DNA double-strand breaks 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],domain:Tandemly repeated BRCT domains are characteristic of proteins involved in DNA damage signaling. In MDC1, these repeats are required for localization to chromatin which flanks sites of DNA damage marked by 'Ser-139' phosphorylation of H2AFX.,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.,PTM: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.,sequence caution:Translated as Gln.,similarity:Contains 1 FHA domain.,similarity:Contains 2 BRCT domains.,subcellular location:Associated with chromatin. Relocalizes to discrete nuclear foci following DNA damage, this requires 'Ser-139' phosphorylation of H2AFX.,subunit:Interacts with several proteins involved in the DNA damage response, although not all these interactions may be direct. Interacts with H2AFX, which requires phosphorylation of H2AFX on 'Ser-139'. Interacts with the MRN complex, composed of MRE11A/MRE11, RAD50, and NBN. Interacts with CHEK2/CHK2/CDS1, which requires ATM-mediated phosphorylation of 'Thr-68' within the FHA domain of CHEK2. Interacts constitutively with the BRCA1-BARD1 complex, SMC1A and TP53BP1. Interacts with ATM and FANCD2, and these interactions are reduced upon DNA damage. Also interacts with the PRKDC complex, composed of G22P1/KU70, XRCC5/KU80 and PRKDC/XRCC7. This interaction may be required for PRKDC autophosphorylation, which is essential for DNA double strand break (DSB) repair. When phosphorylated by ATM, interacts with RNF8. Interacts with CEP164.,tissue specificity:Highly expressed in testis.,

研究领域 (Research Area)

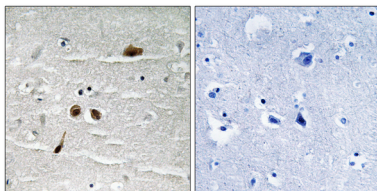
注意事项 (Note)

For research use only.

图片 (Image Data)



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using MDC1 (Phospho-Ser513) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using MDC1 (Phospho-Ser513) Antibody. The picture on the right is blocked with the phosphopeptide.

EnkiLife 优势产品推荐

产品类别	产品货号	产品名称
WB 解决方案	RA10020	2h 极速 WB 即用型全流程试剂盒
	RA10021	4h 快速 WB 即用型全流程试剂盒
	RA10042	5h 畅享版 WB 全流程试剂盒
	RA10037	校准级彩色预染蛋白 Marker (8-180kDa)
	RA10038	校准级彩色预染蛋白 Marker (10-250kDa)
	RA10039	校准级高分子彩色预染蛋白 Marker (25-400kDa)
TSA 多重荧光染色试剂盒	RA10008	TSA 双标三色多重荧光染色试剂盒 (mIHC)
	RA10009	TSA 三标四色多重荧光染色试剂盒 (mIHC)
	RA10010	TSA 四标五色多重荧光染色试剂盒 (mIHC)
	RA10011	TSA 五标六色多重荧光染色试剂盒 (mIHC)
	RA10012	TSA 六标七色多重荧光染色试剂盒 (mIHC)
IHC 检测试剂盒	RA10006	HRP Anti-Mouse/Rabbit IHC Detection System
	RA10007	Polymer-HRP Anti-Mouse/Rabbit IHC Detection System
抗体标记试剂盒	RE80004p	辣根过氧化物酶(HRP)抗体标记试剂盒
	RE80002q	Sulfo-NHS-生物素标记试剂盒
	RE80007p	Cy3 荧光素标记试剂盒
	RE80011p	Fluor488 荧光素标记试剂盒
	RE80017p	Fluor750 荧光素标记试剂盒
	RE80005p	藻红蛋白(R-PE) 抗体快速标记试剂盒
	RE80040	PE-Cy7 串联染料抗体快速标记试剂盒
稳转细胞系构建服务 (免费赠送全膜 WB 验证)	TS-0001	过表达稳转细胞系构建
	TS-0002	敲低稳转细胞系构建
	TS-0003	敲除细胞系构建

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