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Rabbit Anti-phospho-RAD9 (Tyr28) antibody

SL5659R

Product Name:	phospho-RAD9 (Tyr28)
Chinese Name:	磷酸化细胞周期检查控制蛋白质抗体
Alias:	RAD9A(phospho Y28); Cell cycle checkpoint control protein; Cell cycle checkpoint control protein RAD9A; DNA repair exonuclease rad9 homolog A; hRAD 9; hRAD9; Rad 9; RAD 9A; RAD9 (S pombe) homolog; RAD9 homolog A; RAD9 homolog; RAD9A; RAD9A_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	43kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human RAD9 around the phosphorylation site of Tyr28:EL(p-Y)LE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene product is highly similar to Schizosaccharomyces pombe rad9, a cell cycle checkpoint protein required for cell cycle arrest and DNA damage repair in response to

DNA damage. This protein is found to possess 3' to 5' exonuclease activity, which may contribute to its role in sensing and repairing DNA damage. It forms a checkpoint protein complex with RAD1 and HUS1. This complex is recruited by checkpoint protein RAD17 to the sites of DNA damage, which is thought to be important for triggering the checkpoint-signaling cascade. Use of alternative polyA sites has been noted for this gene. [provided by RefSeq].

Function:
Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair. The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C (RFC) clamp loader complex. Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER). The 9-1-1 complex stimulates DNA polymerase beta (POLB) activity by increasing its affinity for the 3'-OH end of the primer-template and stabilizes POLB to those sites where LP-BER proceeds; endonuclease FEN1 cleavage activity on substrates with double, nick, or gap flaps of distinct sequences and lengths; and DNA ligase I (LIG1) on long-patch base excision repair substrates. The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase. RAD9A possesses 3'->5' double stranded DNA exonuclease activity. Its phosphorylation by PRKCD may be required for the formation of the 9-1-1 complex.

Subunit:
Component of the toroidal 9-1-1 (RAD9-RAD1-HUS1) complex, composed of RAD9A, RAD1 and HUS1. The 9-1-1 complex associates with LIG1, POLB, FEN1, RAD17, HDAC1, RPA1 and RPA2. The 9-1-1 complex associates with the RAD17-RFC complex. RAD9A interacts with BCL2L1, FEN1, PRKCD, RAD9B, HUS1, RAD1, ABL1, RPA1, ATAD5 and RPA2. Interacts with DNAJC7 and RHNO1.

Subcellular Location:
Nucleus.

Post-translational modifications:
Constitutively phosphorylated on serine and threonine amino acids in absence of DNA damage. Hyperphosphorylated by PRKCD and ABL1 upon DNA damage. Its phosphorylation by PRKCD may be required for the formation of the 9-1-1 complex.

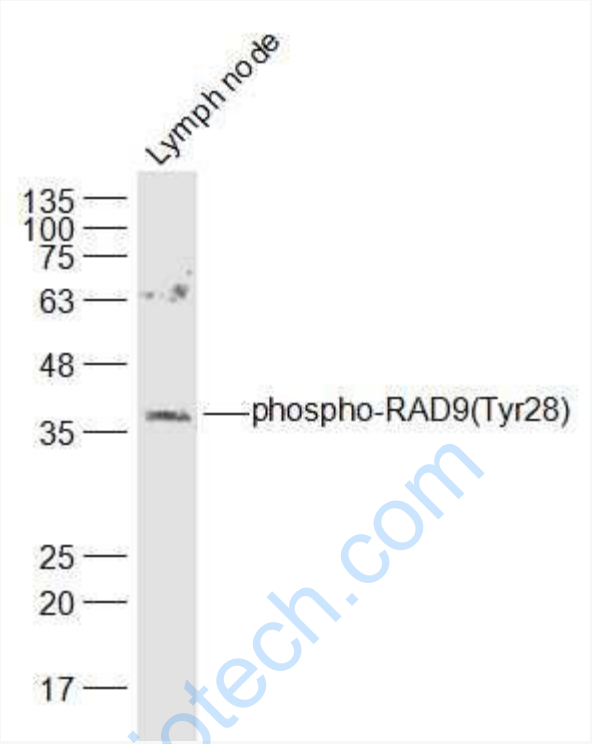
Similarity:
Belongs to the rad9 family.

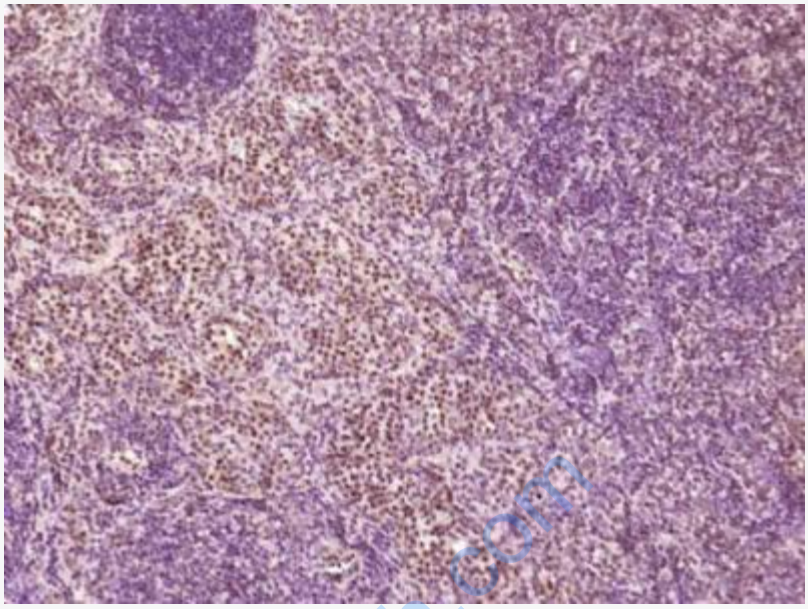
SWISS:
Q99638

Gene ID:
5883

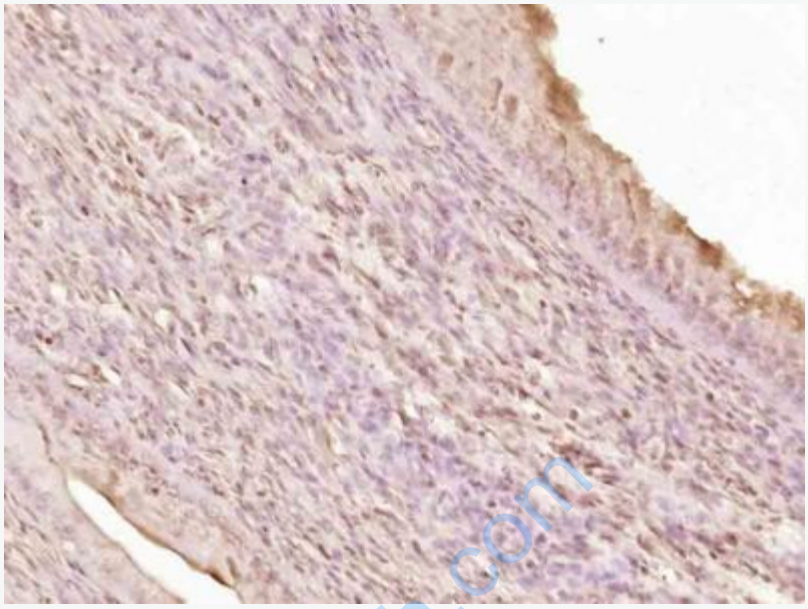
Database links:

	Entrez Gene: 5883Human Entrez Gene: 19367Mouse Entrez Gene: 100361529Rat Omim: 603761Human SwissProt: Q99638Human SwissProt: Q9Z0F6Mouse Unigene: 655354Human Unigene: 277629Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. Rad9由391个AA构成，Rad9有很多重要生物学功能，如：可调控DNA损伤反应、调节细胞的周期、对损伤的DNA进行修复、诱导Apoptosis、调控部分基因的转录、具有3’端到5’端核酸外切酵素(exonuclease)的活性、促进核糖核酸的生合成以及参与胚胎发育过程。曾有报道指出Rad9在调节细胞周期、诱导Apoptosis及维持整个基因体的完整性等方面的生物功能都和p53极为相似，因此Rad9及p53这两种蛋白在功能上可能具有相互协调作用。

Picture:	 Sample: Lymph node (Mouse) Lysate at 40 ug Primary: Anti-phospho-RAD9(Tyr28) (SL5659R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 43 kD Observed band size: 43 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse lymph); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-RAD9(Tyr28)) Polyclonal Antibody, Unconjugated (SL5659R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat uterus); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-RAD9(Tyr28)) Polyclonal Antibody, Unconjugated (SL5659R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.