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Product datasheet for R1480P

RAD9A (pan reactive) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	This affinity purified antibody has been tested for use in ELISA against the immunizing peptide. Reactivity in other immunoassays is unknown. Mature RAD9 is reported to have an apparent molecular weight of ~140 kDa. Recommended Dilution(s): This product has been assayed by ELISA against 0.1 ug of the immunizing peptide. A 1:60,000 dilution of the antibody was noted against the phosphorylated form (pS1260) of the peptide. A 1:6,000 dilution of the antibody was noted against the non-phosphorylated form (S1260) of the peptide. While this antibody appears to be pan reactive, somewhat greater reactivity may be noted for the active form (phosphorylated) of the protein.
Reactivity:	Yeast
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to aa 1249-1263 of 1309 of yeast RAD9 protein.
Specificity:	This is an affinity purified antibody produced by Immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. No reactivity is expected against the human analog of RAD9. Reactivity against RAD9 from other sources is unknown.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 with 0.01% (w/v) Sodium Azide as preservative. State: Aff - Purified State: Liquid (sterile filtered) purified Ig fraction.
Concentration:	lot specific
Purification:	Immunoaffinity chromatography.
Conjugation:	Unconjugated

Storage: Store vial at -20°C. For extended storage aliquot contents and freeze at -20°C or below.
Dilute only prior to immediate use.
Avoid cycles of freezing and thawing.

Stability: Shelf life: One year from despatch.

Gene Name: RAD9 checkpoint clamp component A

Database Link: Q99638

Background: Cells respond to DNA damage by activating a network of signaling pathways that control cell cycle progression and DNA repair. Cell cycle checkpoints are mechanisms that transiently delay cell cycle progression when DNA is damaged or DNA replication is incomplete. In the fission yeast Schizosaccharomyces pombe, a group of six such checkpoint control genes have been identified and include rad1+, rad3+, rad9+, rad17+, rad26+ and hus1+. Mutations in any one of these genes render cells sensitive to gamma-rays, UV light or the DNA synthesis inhibitor hydroxyurea (HU) and eliminate the ability of cells to delay entry into mitosis after treatment with these agents. All of these genes apparently link abnormal DNA structures to cell cycle control. As for cell cycle-related genes in general, these checkpoint control genes are highly conserved throughout evolution. Human and mouse versions of several of the S.pombe genes have been isolated, providing strong evidence that checkpoint control mechanisms are also highly conserved. In mammals, these genes are thought to maintain genomic stability, especially in the presence of DNA damage. Therefore, when these genes are altered, genomic instability may occur and lead to cancer. The biochemical activities of most of the checkpoint control gene products are not well established, although progress has been made towards learning more about their function. For example, examination of the structure of the protein encoded by human or S.pombe rad9 reveals a BH3-like domain in the N-terminal region that can bind the anti-apoptotic proteins Bcl-2 and Bcl-XL. Furthermore, overexpression of the gene from either organism in human cells can cause apoptosis in a BH3 domain-dependent manner. Both S.pombe and human versions of the protein can bind two other checkpoint control proteins, Hus1p (HUS1p) and Rad1p (RAD1p). Human RAD9 protein binds HUS1 and RAD1 proteins at its C-terminal region, suggesting that RAD9 has at least two functional domains, one involved in apoptosis and the other in cell cycle checkpoint control. Rad9 conveys the checkpoint signal by activating Rad53p and Chk1p; is hyperphosphorylated by Mec1p and Tel1p; and is a potential Cdc28p substrate.

Synonyms: RAD-9A, Cell cycle checkpoint control protein RAD9A, EC=3.1.11.2, DNA repair exonuclease rad9 homolog A

Note:

Protein Sequence: Saccharomyces cerevisiae

1 msgqlvqwks spdrvtqsai kealhsplad gdmnemnvpv dplenkvnst niiegspkan
61 pnpvkfmnts eifqkslgll desprhddel nievgdndrp nanilhnert pdldrianff
121 ksnrtpgken lltkyqssdl edtplmlrkk mtfqtptdpl eqktfkklks dtgfcyygeq
181 ndgeenasle vteadatfvq maersadnyd calegivtpk rykdelsksg gmqdervqkt
241 qimisaespn sissydknki tgngrttrnv nkvfnnnedn igaieeknpv kkksenyssd
301 dlrernnqii qsneseeine leknlnvsgr endvnnldid insavsgtps rnnaeeemys
361 sesvnnreps kkwifryskd ktennsnrst qivnnprtqe mpldsisidt qplsksfnte
421 tnneletqii vsslsqgisa qkgpvfhstg qteeiktqii nspeqnalna tfetpvtlsr
481 infepilevp etsspsknтm skpsnsspip kekdtfnihe revetnnvfs ndiqnssnaa
541 trddiiiags sdfneqkeit driylqlsgk qisdsgsdet ermspneldt kkestimsev
601 eltqelpeve eqqdlqtspk klvveeetlm eikkskgnsl qlhddnkecn sdkqdgtesl
661 dvaliehesk gqsselqknl mqlfpsesqe iiqnrrtikr rqkdtieige eeenrstkts
721 ptkhlkrnsd ldaasikrep scsitiqtge tgsgkdskeq syvfpegirt adnsflskdd
781 iifgnavwcq ytwnykfypg illevdtnqd gcwiyfetgr sltkdediyy ldirigdavt
841 fdgneyvvvg lecrshdlni ircirgydtv hlkkknasgl lgkrtlikal ssisldlsew
901 akrakiiled neknkgdayr ylrhpirgrk smtnvlspkk htddekdint htevynneie
961 sssekkeivk kdsrdalaeh agapsllfss geirtgnvfd kcifvltslf enreelrqti
1021 esqggtvies gfstlfnfth plakslvnkg ntdnirelal klawkphslf adcrfaclit
1081 krhlrslkyl etlalgwptl hwkfisacie kkrivphliy qyllpsgesf rlsldspskg
1141 giiksnnifs fytqflrgsn lrdqicgvkk mlndyivivw grseldsfvk fafaclsagr
1201 mltidlpnid vddtepllna ldslvprigs elsnrklkfl iyanenngks qmkllerlrs
1261 qislkfkkfn yifhteskew liqtiinedt gfhdditdnd iyntisevr