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Goat Anti-RAD9A Antibody

Peptide-affinity purified goat antibody

Catalog # AF1902a

Specification

Goat Anti-RAD9A Antibody - Product Information

Application	**WB, Pep-ELISA**
Primary Accession	Q99638
Other Accession	NP_004575, 5883, 19367 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**42547**

Goat Anti-RAD9A Antibody - Additional Information

Gene ID 5883

Other Names
Cell cycle checkpoint control protein RAD9A, hRAD9, 3.1.11.2, DNA repair exonuclease rad9 homolog A, RAD9A

Dilution
WB~~1:1000
Pep-ELISA~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-RAD9A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-RAD9A Antibody - Protein Information

Name RAD9A

Function
Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA

repair (PubMed:10713044, PubMed:17575048, PubMed:20545769, PubMed:21659603, PubMed:31135337). The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17- replication factor C (RFC) clamp loader complex (PubMed:21659603). Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER) (PubMed:21659603). 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 (PubMed:21659603). The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase (PubMed:21659603). RAD9A possesses 3'->5' double stranded DNA exonuclease activity (PubMed:10713044).

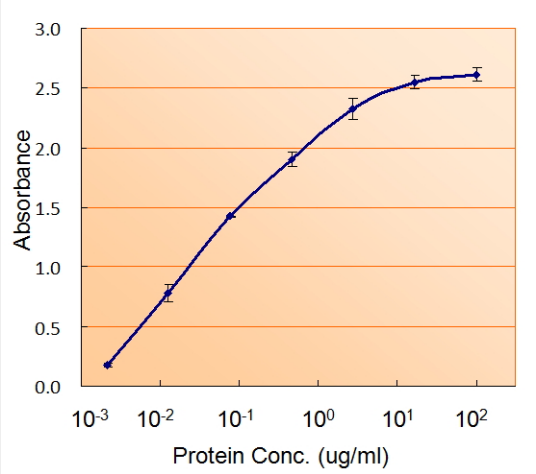
Cellular Location
Nucleus.

Goat Anti-RAD9A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-RAD9A Antibody - Images



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AF1902a (5ug/ml) as the reporter with EB00218 as the capture rabbit antibody (5ug/ml).

AF1902a (0.3µg/ml) staining of A431cell lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-RAD9A Antibody - Background

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.

Goat Anti-RAD9A Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Rad9A is required for G2 decatenation checkpoint and to prevent endoreduplication in response to topoisomerase II inhibition. Greer Card DA, et al. J Biol Chem, 2010 May 14. PMID 20305300.
Interaction between human mismatch repair recognition proteins and checkpoint sensor Rad9-Rad1-Hus1. Bai H, et al. DNA Repair (Amst), 2010 May 4. PMID 20188637.
The Rad9A checkpoint protein is required for nuclear localization of the claspin adaptor protein. Sierant ML, et al. Cell Cycle, 2010 Feb 1. PMID 20081369.
Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.