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RAD17 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10008

Product Information

Application	WB
Primary Accession	O75943
Other Accession	O75943-4, NP_579919, NM_133341
Reactivity	Human, Mouse, Rat, Pig, Dog, Bovine
Predicted	Human, Mouse, Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	77055

Additional Information

Gene ID	5884
Alias Symbol	CCYC, HRAD17, R24L, RAD17Sp, Rad24, RAD24, RAD17SP
Other Names	Cell cycle checkpoint protein RAD17, hRad17, RF-C/activator 1 homolog, RAD17, R24L
Target/Specificity	RAD17 is highly similar to the gene product of Schizosaccharomyces pombe rad17, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This protein shares strong similarity with DNA replication factor C (RFC), and can form a complex with RFCs. This protein binds to chromatin prior to DNA damage and is phosphorylated by ATR after the damage. This protein recruits the RAD1-RAD9-HUS1 checkpoint protein complex onto chromatin after DNA damage, which may be required for its phosphorylation.The protein encoded by this gene is highly similar to the gene product of Schizosaccharomyces pombe rad17, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This protein shares strong similarity with DNA replication factor C (RFC), and can form a complex with RFCs. This protein binds to chromatin prior to DNA damage and is phosphorylated by ATR after the damage. This protein recruits the RAD1-RAD9-HUS1 checkpoint protein complex onto chromatin after DNA damage, which may be required for its phosphorylation. The phosphorylation of this protein is required for the DNA-damage-induced cell cycle G2 arrest, and is thought to be a critical early event during checkpoint signaling in DNA-damaged cells. Eight alternatively spliced transcript variants of this gene, which encode four distinct proteins, have been reported.
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-RAD17 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at

-20°C. Avoid repeat freeze-thaw cycles.

Precautions RAD17 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name RAD17 {ECO:0000303|PubMed:9878245, ECO:0000312|HGNC:HGNC:9807}

Function Essential for sustained cell growth, maintenance of chromosomal stability, and ATR-dependent checkpoint activation upon DNA damage (PubMed:10208430, PubMed:11418864, PubMed:11687627, PubMed:11799063, PubMed:12672690, PubMed:14624239, PubMed:15235112). Has a weak ATPase activity required for binding to chromatin (PubMed:10208430, PubMed:11418864, PubMed:11687627, PubMed:11799063, PubMed:12672690, PubMed:14624239, PubMed:15235112). Participates in the recruitment of the 9-1-1 (RAD1-RAD9-HUS1) complex and RHNO1 onto chromatin, and in CHEK1 activation (PubMed:21659603). Involved in homologous recombination by mediating recruitment of the MRN complex to DNA damage sites (PubMed:24534091). May also serve as a sensor of DNA replication progression (PubMed:12578958, PubMed:14500819, PubMed:15538388).

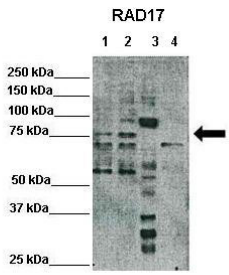
Cellular Location Nucleus. Chromosome Note=Phosphorylated form redistributes to discrete nuclear foci upon DNA damage (PubMed:11799063). Localizes to DNA double-strand breaks (DSBs) (PubMed:24534091).

Tissue Location Overexpressed in various cancer cell lines and in colon carcinoma (at protein level). Isoform 2 and isoform 3 are the most abundant isoforms in non irradiated cells (at protein level) Ubiquitous at low levels. Highly expressed in testis, where it is expressed within the germinal epithelium of the seminiferous tubuli Weakly expressed in seminomas (testicular tumors)

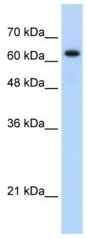
Background

This is a rabbit polyclonal antibody against RAD17. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire (sales@abgent.com).

Images



RAD17 antibody - C-terminal region (AI10008) in Hela, HEK293T, Xenopus laevis egg extract, mouse embryonic cells using Western Blot
WB Suggested Anti-RAD17 Antibody
Positive Control: Lane1: 25ug Hela lysate, Lane2: 25ug HEK293T lysate, Lane3: 25ug Xenopus laevis egg extract, Lane4: 25ug mouse embryonic stem cells lysate
Primary Antibody Dilution : 1:500
Secondary Antibody : Anti-rabbit-HRP
Secondry Antibody Dilution : 1:3000
Submitted by: Domenico Maiorano, Institute of Human Genetics, CNRS



RAD17 antibody - C-terminal region (AI10008) in Human Jurkat cells using Western Blot
WB Suggested Anti-RAD17 Antibody Titration: 1.25 µg/ml
ELISA Titer: 1:62500
Positive Control: Jurkat cell lysate
RAD17 is strongly supported by BioGPS gene expression data to be expressed in Human Jurkat cells

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.