

Immunotag™ Rad17 Polyclonal Antibody

Antibody Specification	
Catalog No.	ITT3957
Product Description	Immunotag™ Rad17 Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Rad17
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,IHC-p,IF,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse
Host Species	Rabbit
Immunogen	The antiserum was produced against synthesized peptide derived from human RAD17. AA range:621-670
Specificity	Rad17 Polyclonal Antibody detects endogenous levels of Rad17 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	RAD17
Accession No.	O75943 Q6NXW6
Alternate Names	RAD17; R24L; Cell cycle checkpoint protein RAD17; hRad17; RF-C/activator 1 homolog

Antibody Specification

Description	RAD17 checkpoint clamp loader component(RAD17) Homo sapiens 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 the checkpoint kinase ATR following 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. Multiple alternatively spliced transcript variants of this gene, which encode four distinct protein isoforms, h
Protein Expression	Brain,Cervix carcinoma,Colon,Epithelium,Fetal brain,Fibroblast,Live
Subcellular Localization	chromosome, telomeric region,nuclear chromatin,nucleus,nucleoplasm,nucleolus,Rad17 RFC-like complex,
Protein Function	function:Essential for sustained cell growth, maintenance of chromosomal stability, and ATR-dependent checkpoint activation upon DNA damage. Has a weak ATPase activity required for binding to chromatin. Participates in the recruitment of the RAD1-RAD9-HUS1 complex onto chromatin, and in CHEK1 activation. May also serve as a sensor of DNA replication progression, and may be involved in homologous recombination.,induction:By X-ray irradiation (isoform 1, isoform 3 and isoform 4).,PTM:Phosphorylated. Phosphorylation on Ser-646 and Ser-656 is cell cycle-regulated, enhanced by genotoxic stress, and required for activation of checkpoint signaling. Phosphorylation is mediated by ATR upon UV or replication arrest, whereas it may be mediated both by ATR and ATM upon ionizing radiation. Phosphorylation on both sites is required for interaction with RAD1 but dispensable for interaction with RFC3 or RFC4.,similarity:Belongs to the rad17/RAD24 family.,subcellular location:Phosphorylated form redistributes to discrete nuclear foci upon DNA damage.,subunit:Part of a DNA-binding complex containing RFC2, RFC3, RFC4 and RFC5. Interacts with RAD1 and RAD9 within the RAD1-RAD9-HUS1 complex. Interacts with RAD9B, POLE, NHP2L1 and MCM7. DNA damage promotes interaction with ATR or ATM and disrupts interaction with the RAD1-RAD9-HUS1 complex.,tissue specificity: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).,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.