ARG45178
anti-RAD17 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes RAD17
Tested Reactivity	Ms, Rat
Tested Application	FACS, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Target Name	RAD17
Species	Mouse
Immunogen	Recombinant protein containing to mouse RAD17.
Conjugation	Un-conjugated
Alternate Names	T-cell surface glycoprotein CD1b; CD1b; CD1B

Application Instructions

Application table

Application	Dilution
FACS	1 - 3 µg/10^6 cells
IHC-P	0.5-1 µg/ml
WB	0.25-0.5 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: 77 kDa

Properties

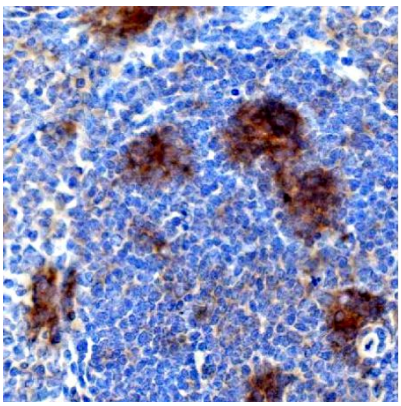
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na2HPO4, 0.01% Sodium azide and 4% Trehalose.
Preservative	0.01% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

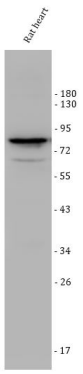
Gene Symbol	RAD17
Gene Full Name	RAD17 Checkpoint Clamp Loader Component
Background	The protein encoded by this gene is highly similar to the gene product of Schizosaccharomyces pombe rad17, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This 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, have been reported. Two pseudogenes, located on chromosomes 7 and 13, have been identified. [provided by RefSeq, Jul 2013]
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 and RHNO1 onto chromatin, and in CHEK1 activation. May also serve as a sensor of DNA replication progression, and may be involved in homologous recombination. [UniProt]
Calculated Mw	77 kDa
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.
Cellular Localization	Cell membrane. [UniProt]

Images



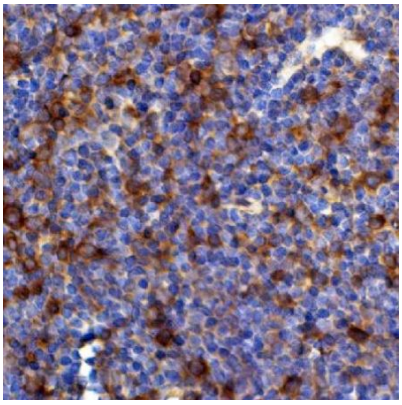
ARG45178 anti-RAD17 antibody IHC-P image

Immunohistochemistry: Rat spleen stained with ARG45178 anti-RAD17 antibody at 1 µg/ml dilution.



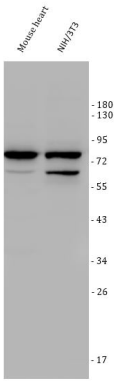
ARG45178 anti-RAD17 antibody WB image

Western blot: Rat heart stained with ARG45178 anti-RAD17 antibody at 0.5 µg/ml dilution.



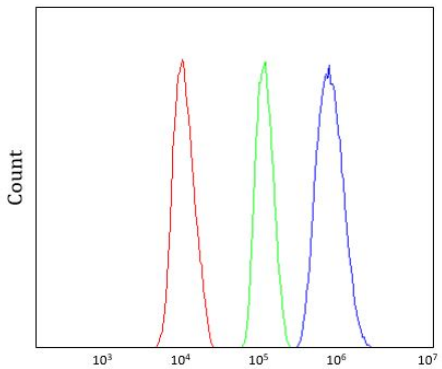
ARG45178 anti-RAD17 antibody IHC-P image

Immunohistochemistry: Mouse Peyer's patches stained with ARG45178 anti-RAD17 antibody at 1 µg/ml dilution.



ARG45178 anti-RAD17 antibody WB image

Western blot: Mouse heart and NIH/3T3 stained with ARG45178 anti-RAD17 antibody at 0.5 µg/ml dilution.



ARG45178 anti-RAD17 antibody FACS image

Flow Cytometry: HEPA1-6 stained with ARG45178 anti-RAD17 antibody at 1 µg/10^6 cells dilution.