Product Name: **KD-Validated Phospho-Rad17 (S656) Recombinant Rabbit Monoclonal Antibody**

Catalog #: **KVAb00974**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human,M
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 77.1kDa

Antigen Information

Gene Name	RAD17
Alternative Names	RAD17 Checkpoint Clamp Loader Component; RAD17Sp; Rad24; CCYC; Cell Cycle Checkpoint Protein RAD17; R24L; Cell Cycle Checkpoint Protein (RAD17); RAD17 Homolog (S. Pombe); RF-C Activator 1 Homolog; RF-C/Activator 1 Homolog; RAD1 (S. Pombe) Homolog; Rad17-Like Protein; RAD17 Homolog; RAD1 Homolog; HRAD17; HRad17
Gene ID	5884.0
SwissProt ID	O75943
Immunogen	A synthesized peptide derived from human Phospho-Rad17 (S656)

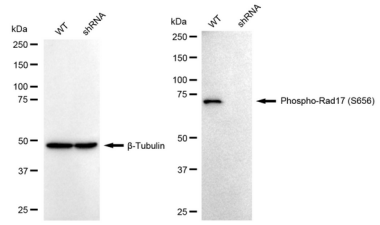
Background

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]

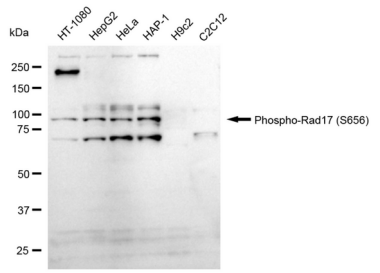
Research Area

Epigenetics and Nuclear Signaling

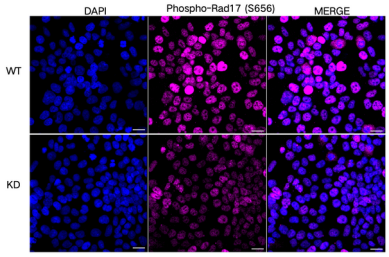
Image Data



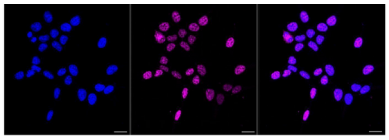
Western blotting analysis using phospho-Rad17 (S656) antibody (KVAb00974). Phospho-Rad17 (S656) expression in wild-type (WT) and RAD17 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with phospho-Rad17 (S656) antibody (KVAb00974, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



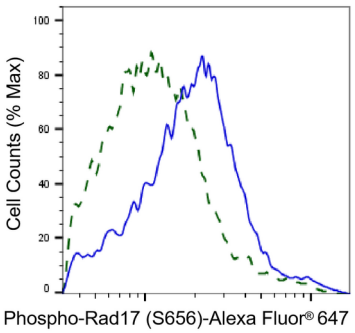
Western blotting analysis using Phospho-Rad17 (S656) antibody (KVAb00974). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-Rad17 (S656) antibody (KVAb00974, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



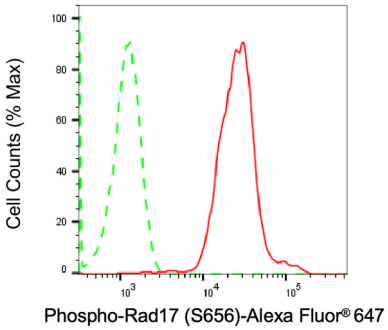
Immunocytochemical staining of HeLa cells using Phospho-Rad17 (S656) antibody (KVAb00974, 1:1,000), Top panel: wild-type (WT); Bottom panal: Phospho-Rad17 (S656) shRNA knockdown (KD). Nuclei were stained blue with DAPI; Phospho-Rad17 (S656) was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HAP-1 cells with Phospho-Rad17 (S656) antibody (KVAb00974, 1:1,000) . Nuclei were stained blue with DAPI; Phospho-Rad17 (S656) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Validation of Rad17 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phospho-Rad17 (S656) antibody (KVAb00974, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Phospho-Rad17 (S656) expression in HAP-1 cells using Phospho-Rad17 (S656) antibody (KVAb00974, 1:2,000). Green, isotype control; red, Phospho-Rad17 (S656).