

Anti-Rad51 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

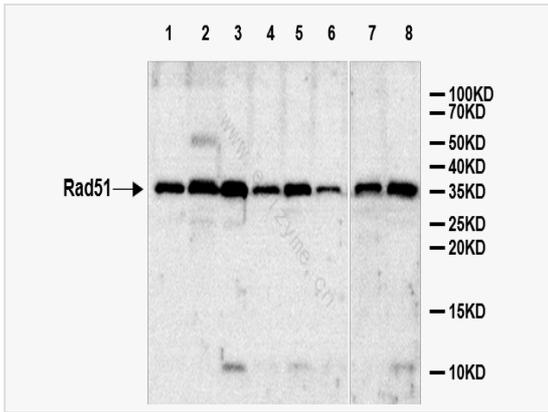
Catalog # R013757

Product Information

Application	ELISA, WB, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse
Dilution	WB 1:1,000~1:5,000; IHC-P 1:200; IF 1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	20M21C31
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Rad51
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Rad51 Rabbit mAb [20M21C31] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	TRAD, R51H3, BROVCA4, RAD51L3.
Calculated MW	Calculated MW: 37 kDa; Observed MW: 37 kDa
Uniprot ID	O75771
Gene ID	5892
Background	Involved in the homologous recombination repair (HRR) pathway of double-stranded DNA breaks arising during DNA replication or induced by DNA-damaging agents. Bind to single-stranded DNA (ssDNA) and has DNA-dependent ATPase activity. Part of the Rad21 paralog protein complex BCDX2 which acts in the BRCA1-BRCA2-dependent HR pathway. Upon DNA damage, BCDX2 acts downstream of BRCA2 recruitment and upstream of RAD51 recruitment. BCDX2 binds predominantly to the intersection of the four duplex arms of the Holliday junction and to junction of replication forks. The BCDX2 complex was originally reported to bind single-stranded DNA, single-stranded gaps in duplex DNA and specifically to nicks in duplex DNA. Involved in telomere maintenance. The BCDX2 subcomplex XRCC2:Rad51 can stimulate Holliday junction resolution by BLM.



Western Blot - Anti-Rad51D Rabbit mAb [20M21C31]

All lanes: R013757 at 1:1,000 dilution

- Lane 1: MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysates
- Lane 2: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysates
- Lane 3: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates
- Lane 4: A549 ((human lung carcinoma epithelial cell) whole cell lysates
- Lane 5: 293T (human embryonic kidney cell) whole cell lysates
- Lane 6: MSC (human mesenchymal stem cell) whole cell lysates
- Lane 7: Balb/c mouse brain whole tissue lysates
- Lane 8: Balb/c mouse lung whole tissue lysates

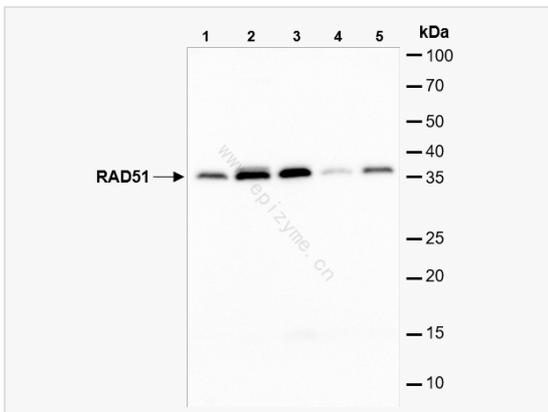
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 37 kDa

Observed band size: 37 kDa

Developed using the ECL technique (Cat. No. SQ201).



Western Blot - Anti-Rad51 Rabbit mAb [20M21C31]

All lanes: R013757 at 1:5,000 dilution

- Lane 1: HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysates
- Lane 2: A549 (human non-small cell lung cancer epithelial cell) whole cell lysates
- Lane 3: Jurkat (human T lymphocytic leukemia cell) whole cell lysates
- Lane 4: HCT116 (human colorectal carcinoma epithelial cell) whole cell lysates
- Lane 5: T24 (human bladder cancer epithelial cell) whole cell lysates

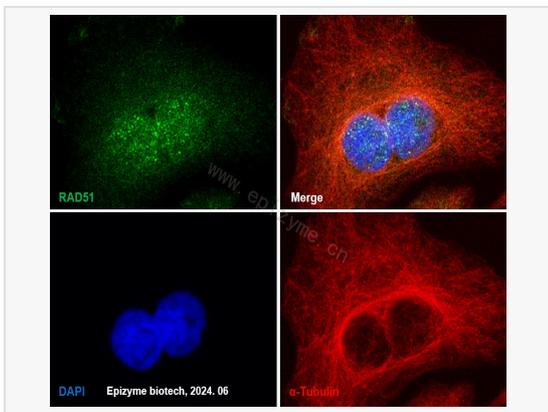
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Immunofluorescence - Anti-Rad51D Rabbit mAb [20M21C31]

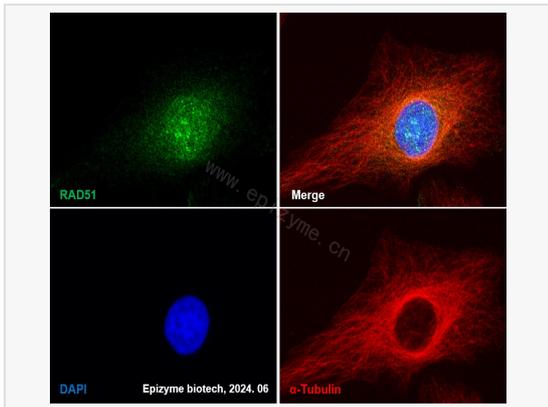
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R013757 at 1:100 dilution and α-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Immunofluorescence - Anti-Rad51D Rabbit mAb [20M21C31]

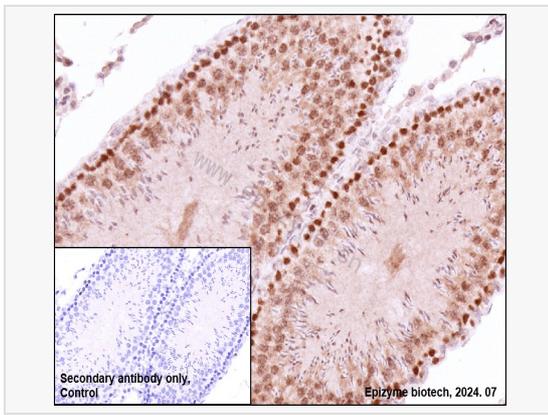
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Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-Rad51 Rabbit mAb [20M21C31]

Sample: Paraformaldehyde-fixed, paraffin embedded rat testis tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013757 at 1:200 dilution

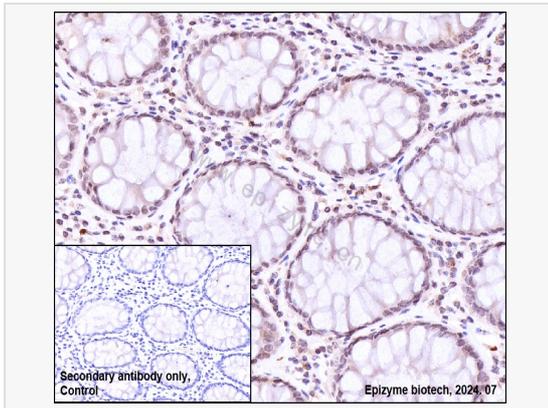
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Rad51 Rabbit mAb [20M21C31]

Sample: Paraformaldehyde-fixed, paraffin embedded human colorectal carcinoma tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R013757 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.