

# **Human Rad50 Antibody**

Monoclonal Mouse IgG<sub>1</sub> Clone # 684945 Catalog Number: MAB4996

DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human Rad50 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) Rad51 or rhRad53 is observed.	
Source	Monoclonal Mouse IgG <sub>1</sub> Clone # 684945	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	E. coli-derived recombinant human Rad50 Leu518-Leu881 Accession # Q92878	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.	

#### APPLICATIONS

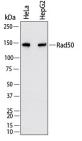
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below

## DATA



Western Blot



Detection of Human Rad50 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cells HepG2 human hepatocellular carcinoma cells. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Rad50 Monoclonal Antibody (Catalog # MAB4996) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Rad50 at approximately ~150kDa kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

#### PREPARATION AND STORAGE

**Reconstitution** Sterile PBS to a final concentration of 0.5 mg/mL

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Stability & Storage

# Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

### BACKGROUND

Rad50 is a 150 kDa member of the Rad50 subfamily, SMC (structural maintenance of chromosomes) family of DNA-associated genes. It is ubiquitously expressed, and associates with MRE11 and NBS1 to form an MRN complex. This complex stabilizes ATM kinase, thus contributing to DNA repair, and also participates in the suppression of DNA rereplication in dividing cells. Human Rad50 is 1312 amino acids (aa) in length. It has an apparent ATP binding site (aa 36-43) plus a coiled-coil region (aa 228-598) followed by a "zinc-hook" domain (aa 635-734) that mediates homodimerization. There are multiple splice variants. An alternate start site exists at Met140, there is a single Lys substitution for aa 723-1312, and three Lys substitute for aa 555-1312. Over aa 518-881, human Rad50 is 96% aa identical to mouse Rad50.

Rev. 10/9/2023 Page 1 of 1

