

Rad51 Mouse mAb

CatalogNo: YM1281

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat, Monkey

Applications

- WB

MW

- 37kD (Observed)

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:1000

Basic Information

Clonality Monoclonal

Clone Number 4B8

Immunogen Information

Immunogen Recombinant protein of human Rad51.

Specificity This antibody detects endogenous levels of Rad51 and does not cross-react with related proteins.

Target Information

Gene name rad51

Protein Name**Organism****Gene ID****UniProt ID**

Human	5888 ;	Q06609 ;
Mouse		Q08297 ;

Cellular Localization

Nucleus . Cytoplasm . Cytoplasm, perinuclear region. Mitochondrion matrix . Chromosome . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage (PubMed:20154705). DNA damage induces an increase in nuclear levels (PubMed:20154705). Together with FIGNL1, redistributed in discrete nuclear DNA damage-induced foci after ionizing radiation (IR) or camptothecin (CPT) treatment (PubMed:23754376). Accumulated at sites of DNA damage in a SPDR-dependent manner (PubMed:23509288). Recruited at sites of DNA damage in a MCM9-MCM8-dependent manner (PubMed:23401855). Colocalizes with ERCC5/XPG to nuclear foci in S phase (PubMed:26833090). .

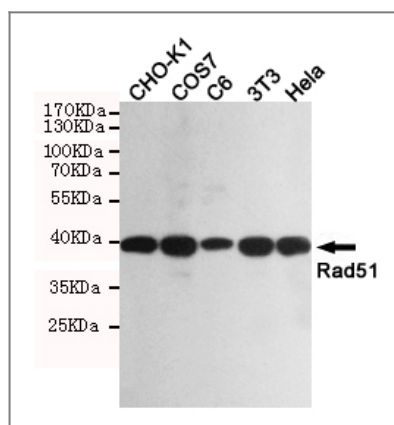
Tissue specificity

Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.

Function

Disease:Defects in RAD51 are associated with breast cancer (BC) [MIM:114480].,Function:May participate in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair. Binds to single and double stranded DNA and exhibits DNA-dependent ATPase activity. Underwinds duplex DNA and forms helical nucleoprotein filaments.,PTM:Phosphorylated. Phosphorylation of Thr-309 by CHEK1/CHK1 may enhance association with chromatin at sites of DNA damage and promote DNA repair by homologous recombination.,similarity:Belongs to the recA family.,similarity:Belongs to the recA family. RAD51 subfamily.,similarity:Contains 1 HhH domain.,subcellular location:Colocalizes with RAD51AP1 to multiple nuclear foci upon induction of DNA damage.,subunit:Interacts with BRCA1, BRCA2 and either directly or indirectly with p53. Interacts with XRCC3, RAD54L and RAD54B. Part of a complex with RAD51C and RAD51B. Interacts with RAD51AP1 and RAD51AP2. Interacts with CHEK1/CHK1, and this may require prior phosphorylation of CHEK1. Interacts with the MND1-PSMC3IP heterodimer (By similarity). Interacts with OBFC2B.,tissue specificity:Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.,

Validation Data



Western blot detection of Rad51 in CHO-K1, COS7, C6, 3T3 and HeLa cell lysates using Rad51 mouse mAb (1:1000 diluted). Predicted band size: 37kDa. Observed band size: 37kDa.

| Contact information

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Rad51 Mouse mAb

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