

#12711 Store at -20C

**MERIT40 (D7Y5K) Rabbit mAb****Cell Signaling**  
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	40	Rabbit IgG	#Q9NWW8	29086

**Product Usage Information****Application**Western Blotting  
Immunoprecipitation**Dilution**1:1000  
1:200**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

MERIT40 (D7Y5K) Rabbit mAb recognizes endogenous levels of total MERIT40 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human MERIT40 protein.

**Background**

The breast cancer susceptibility gene, BRCA1, codes for an E3 ubiquitin ligase that functions in the maintenance of genome stability through regulation of DNA damage response and DNA repair. BRCA1 forms at least three distinct complexes (BRCA1 A, B, and C) with other DNA repair proteins, and these interactions are vital for the regulation of BRCA1 function. The BRCA1-Rap80 complex (BRCA1 A complex), including Rap80, BRCC36, BRCC45, Abraxas, and MERIT40/NBA1, functions in G2/M phase checkpoint control (reviewed in 1,2).

MERIT40/NBA1 localizes to sites of DNA damage and is required for the appropriate localization of BRCA1 in response to ionizing radiation, as well as maintenance of the BRCA1 A complex (3,4). Proteomics studies have identified Ser29 as a phosphorylated site on MERIT40/NBA1, and the significance of this phosphorylation is under investigation (5-9).

**Background References**

- Ohta, T. et al. (2011) *FEBS Lett* 585, 2836-44.
- Huen, M.S. et al. (2010) *Nat Rev Mol Cell Biol* 11, 138-48.
- Wang, B. et al. (2009) *Genes Dev* 23, 729-39.
- Shao, G. et al. (2009) *Genes Dev* 23, 740-54.
- Moritz, A. et al. (2010) *Sci Signal* 3, ra64.
- Rigbolt, K.T. et al. (2011) *Sci Signal* 4, rs3.
- Iliuk, A.B. et al. (2010) *Mol Cell Proteomics* 9, 2162-72.
- Wu, F. et al. (2010) *Mol Cell Proteomics* 9, 1616-32.
- Mayya, V. et al. (2009) *Sci Signal* 2, ra46.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key****WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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