

#14243 Store at -20C

**FANCB (D9W6S) 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	H M R	Endogenous	90	Rabbit IgG	#Q8NB91	2187

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**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**

FANCB (D9W6S) Rabbit mAb recognizes endogenous levels of total FANCB protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro280 of human FANCB protein.

**Background**

Fanconi anemia (FA) is an autosomal recessive genetic disorder resulting in symptoms that include chromosomal breakage, bone marrow failure, hypersensitivity to DNA cross-linking agents (such as mitomycin C), and a predisposition to cancer (1). FANCB is an X-linked member of the FA nuclear complex (FANCA, FANCB, FANCC, FANCE, FANCF, FANCG, FANCM). In response to DNA damage, the FA nuclear complex induces mono-ubiquitination of FANCD2 and FANCI (2). FANCI/BRIP1, FANCD1/BRCA2, and FANCD1/PALB2 are then recruited to sites of DNA damage along with other DNA repair proteins. FA signaling is important in maintenance of chromosome stability and control of mitosis (3).

Studies of FANCB knockout embryonic stem cells suggest a role for FANCB in the formation of Rad51 and FANCD2 foci at chromosomal sites of DNA damage (4).

**Background References**

1. Alter, B.P. (1996) *Am J Hematol* 53, 99-110.
2. Fei, P. et al. (2005) *Cell Cycle* 4, 80-6.
3. Nalepa, G. and Clapp, D.W. (2014) *F1000Prime Rep* 6, 23.
4. Kim, T.M. et al. (2011) *Mutat Res* 712, 20-7.

**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**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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