

### FANCD2 Antibody (clone 6)

Mouse Monoclonal Antibody Catalog # ALS11285

## **Specification**

### FANCD2 Antibody (clone 6) - Product Information

Application IHC
Primary Accession O9BXW9
Reactivity Human
Host Mouse
Clonality Monoclonal
Calculated MW 164kDa KDa

### FANCD2 Antibody (clone 6) - Additional Information

**Gene ID 2177** 

#### **Other Names**

Fanconi anemia group D2 protein, Protein FACD2, FANCD2, FACD

### Target/Specificity

Human FANCD2 fusion protein

### **Reconstitution & Storage**

+4°C or -20°C, Avoid repeated freezing and thawing.

#### **Precautions**

FANCD2 Antibody (clone 6) is for research use only and not for use in diagnostic or therapeutic procedures.

## FANCD2 Antibody (clone 6) - Protein Information

### Name FANCD2

### **Synonyms FACD**

### **Function**

Required for maintenance of chromosomal stability. Promotes accurate and efficient pairing of homologs during meiosis. Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing. May participate in S phase and G2 phase checkpoint activation upon DNA damage. Plays a role in preventing breakage and loss of missegregating chromatin at the end of cell division, particularly after replication stress. Required for the targeting, or stabilization, of BLM to non-centromeric abnormal structures induced by replicative stress. Promotes BRCA2/FANCD1 loading onto damaged chromatin. May also be involved in B-cell immunoglobulin isotype switching.

### **Cellular Location**

Nucleus Note=Concentrates in nuclear foci during S phase and upon genotoxic stress. At the onset



Tel: 858.875.1900 Fax: 858.875.1999

of mitosis, excluded from chromosomes and diffuses into the cytoplasm, returning to the nucleus at the end of cell division. Observed in a few spots localized in pairs on the sister chromatids of mitotic chromosome arms and not centromeres, one on each chromatids. These foci coincide with common fragile sites and could be sites of replication fork stalling. The foci are frequently interlinked through BLM-associated ultra-fine DNA bridges. Following aphidicolin treatment, targets chromatid gaps and breaks

#### **Tissue Location**

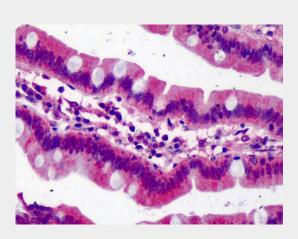
Highly expressed in germinal center cells of the spleen, tonsil, and reactive lymph nodes, and in the proliferating basal layer of squamous epithelium of tonsil, esophagus, oropharynx, larynx and cervix. Expressed in cytotrophoblastic cells of the placenta and exocrine cells of the pancreas (at protein level). Highly expressed in testis, where expression is restricted to maturing spermatocytes

### FANCD2 Antibody (clone 6) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

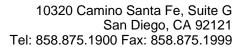
## FANCD2 Antibody (clone 6) - Images



Anti-FANCD2 antibody IHC of human small intestine.

## FANCD2 Antibody (clone 6) - Background

Required for maintenance of chromosomal stability. Promotes accurate and efficient pairing of homologs during meiosis. Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing. May participate in S phase and G2 phase checkpoint activation upon DNA damage. Plays a role in preventing breakage and loss of missegregating chromatin at the end of cell division, particularly after replication stress. Required for the targeting, or stabilization, of BLM to non-centromeric abnormal structures induced by replicative stress. Promotes BRCA2/FANCD1 loading onto damaged chromatin. May also be involved in B-cell immunoglobulin isotype switching.





# FANCD2 Antibody (clone 6) - References

Timmers C.,et al.Mol. Cell 7:241-248(2001). Ota T.,et al.Nat. Genet. 36:40-45(2004). Bechtel S.,et al.BMC Genomics 8:399-399(2007). Garcia-Higuera I.,et al.Mol. Cell 7:249-262(2001). Taniguchi T.,et al.Blood 100:2414-2420(2002).