10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-FANCD2 Rabbit Monoclonal Antibody

Catalog # ABO13842

Product Information

Application	WB, IHC, IF, ICC, IP
Primary Accession	Q9BXW9
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-FANCD2 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	2177
Other Names	Fanconi anemia group D2 protein, Protein FACD2, FANCD2, FACD
Calculated MW	164128
Application Details	WB 1:1000-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50
Subcellular Localization	Nucleus. Concentrates in nuclear foci during S phase and upon genotoxic stress. At the onset 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 Specificity	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..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

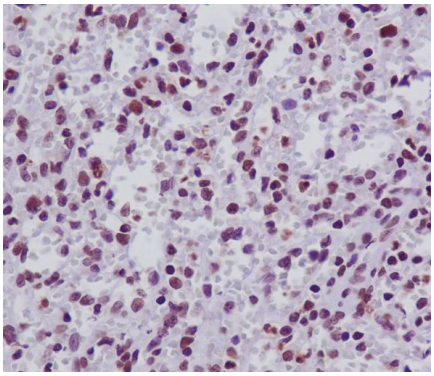
Clone Names	Clone: GCE-6
Immunogen	A synthesized peptide derived from human FANCD2
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	FANCD2
Synonyms	FACD
Function	Required for maintenance of chromosomal stability (PubMed: 11239453, PubMed:14517836). Promotes accurate and efficient pairing of homologs during meiosis (PubMed:14517836). Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing (PubMed:15671039, PubMed:15650050, PubMed:30335751, PubMed:36385258). The FANCI-FANCD2 complex binds and scans double-stranded DNA (dsDNA) for DNA damage; this complex stalls at DNA junctions between double-stranded DNA and single-stranded DNA (By similarity). May participate in S phase and G2 phase checkpoint activation upon DNA damage (PubMed:15377654). Plays a role in preventing breakage and loss of missegregating chromatin at the end of cell division, particularly after replication stress (PubMed:15454491, PubMed:15661754). Required for the targeting, or stabilization, of BLM to non-centromeric abnormal structures induced by replicative stress (PubMed:15661754, PubMed:19465921). Promotes BRCA2/FANCD1 loading onto damaged chromatin (PubMed:11239454, PubMed:12239151, PubMed:12086603, PubMed:15115758, PubMed:15199141, PubMed:15671039, PubMed:18212739). 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 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

Images

Immunohistochemical analysis of paraffin-embedded human spleen, using FANCD2 Antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.