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FANCD2 Polyclonal Antibody
Catalog # AP69858

Specification

FANCD2 Polyclonal Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9BXW9
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**

FANCD2 Polyclonal Antibody - Additional Information

Gene ID 2177

Other Names
FANCD2; FACD; Fanconi anemia group D2 protein; Protein FACD2

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
IHC-P~~N/A

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

FANCD2 Polyclonal Antibody - 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

FANCD2 Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FANCD2 Polyclonal Antibody - Images

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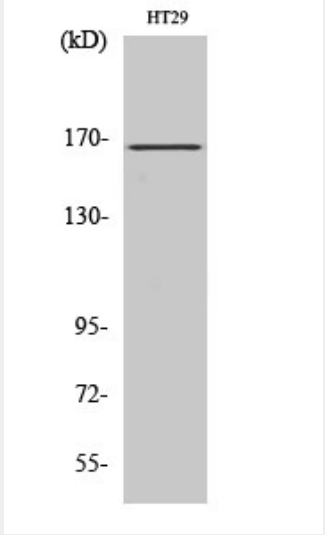

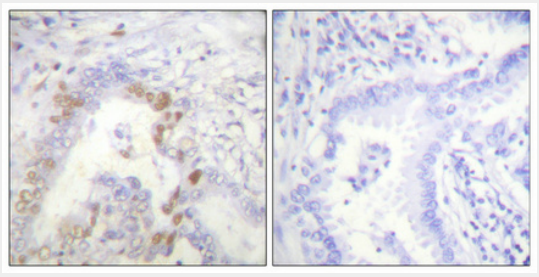

FANCD2 Polyclonal Antibody - Background

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.