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

Anti-FANCI (Ser559) Antibody

Our Anti-FANCI (Ser559) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutions is
Catalog # AN1383

Specification

Anti-FANCI (Ser559) Antibody - Product Information

Primary Accession	Q9NVI1
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	149324

Anti-FANCI (Ser559) Antibody - Additional Information

Gene ID	55215

Other Names
FANCI antibody, FANCI gene antibody, FANCI_HUMAN antibody, Fanconi anemia group I protein antibody, Fanconi anemia complementation group I antibody, FLJ10719 antibody, FLJ14658 antibody, KIAA1794 antibody, Protein FACI antibody, Protein FANCI antibody,

Target/Specificity
Fanconi anemia, FA, is a rare disorder where cells cannot prevent, repair, or tolerate DNA damage, leading to cancer, progressive bone marrow failure and developmental abnormalities (Ishiai et al., 2008). 16 genes have been implicated in FA, and their products constitute a common FA pathway (Walden and Deans 2014). FANCI (Fanconi anemia complementation group I), is one of two substrates for monoubiquitnation by the FANCL-containing core complex, and is crucial for DNA repair via FAP and intrastrand cross-links (Walden and Deans, 2014). Phosphorylation of Ser-556 and Ser-559 are highly conserved and have been determined to be ATM/ATR kinase substrates for the FA-DNA pathway (Smogorzewska et al., 2007). Furthermore, the phosphorylation of Ser-556 and Ser-559 have been shown to play key roles in FANCI physically associating with FANCD2, stabilizing the ID2 complex, and supporting its DNA binding and subsequent D2-ubiquitination (Walden and Deans, 2014). Research continues to determine if one site plays more of a role in the DNA repair/damage checkpoint of the FA pathway and stabilization of the ID2 complex.

Format
Antigen Affinity Purified from Pooled Serum

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-FANCI (Ser559) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

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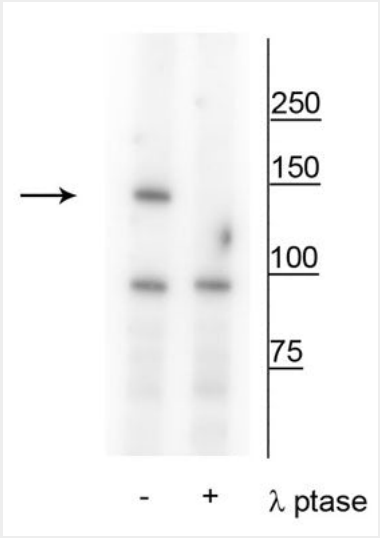
Anti-FANCI (Ser559) Antibody - Protocols

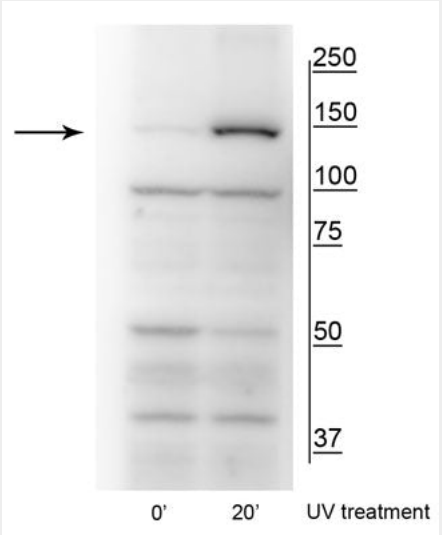
Provided below are standard protocols that you may find useful for product applications.

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

Anti-FANCI (Ser559) Antibody - Images



Western blot of Hela cell lysate treated with UV (~254nm) for 20’ showing specific immunolabeling of the ~150 kDa FANCI protein phosphorylated at Ser559 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (λ-Ptase, 1200 units for 30 min).



Western blot of HeLa cell lysates that had been treated with UV (~254 nm) for 0’ or 20’ showing

specific immunolabeling of the ~150 kDa FANCI protein phosphorylated at Ser559.

Anti-FANCI (Ser559) Antibody - Background

Fanconi anemia, FA, is a rare disorder where cells cannot prevent, repair, or tolerate DNA damage, leading to cancer, progressive bone marrow failure and developmental abnormalities (Ishiai et al., 2008). 16 genes have been implicated in FA, and their products constitute a common FA pathway (Walden and Deans 2014). FANCI (Fanconi anemia complementation group I), is one of two substrates for monoubiquitnation by the FANCL-containing core complex, and is crucial for DNA repair via FAP and intrastrand cross-links (Walden and Deans, 2014). Phosphorylation of Ser-556 and Ser-559 are highly conserved and have been determined to be ATM/ATR kinase substrates for the FA-DNA pathway (Smogorzewska et al., 2007). Furthermore, the phosphorylation of Ser-556 and Ser-559 have been shown to play key roles in FANCI physically associating with FANCD2, stabilizing the ID2 complex, and supporting its DNA binding and subsequent D2-ubiquitination (Walden and Deans, 2014). Research continues to determine if one site plays more of a role in the DNA repair/damage checkpoint of the FA pathway and stabilization of the ID2 complex.