

**DESCRIPTION**

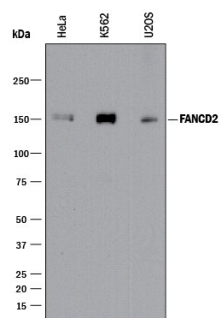
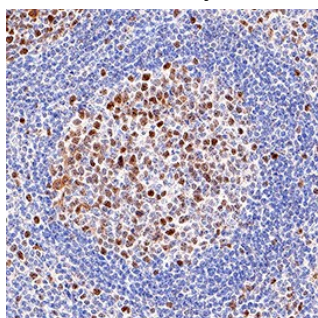
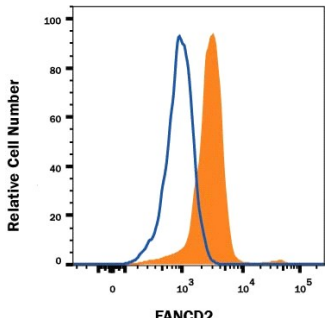
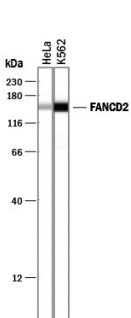
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human FANCD2 in direct ELISAs and Western blots.  |
| <b>Source</b>             | Recombinant Monoclonal Rabbit IgG Clone # 1290D   |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human FANCD2<br>Glu11-Glu230<br>Accession # Q9BXW9  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

**APPLICATIONS**

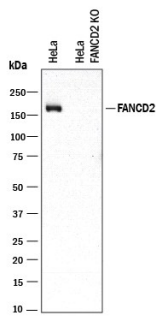
**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|   | <b>Recommended Concentration</b>  | <b>Sample</b> |
|---|---|---------------|
| <b>Western Blot</b>                             | 0.1 µg/mL   | See Below     |
| <b>Immunohistochemistry</b>                     | 5-25 µg/mL  | See Below     |
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25 µg/10 <sup>6</sup> cells   | See Below     |
| <b>Simple Western</b>                           | 1 µg/mL   | See Below     |
| <b>Knockout Validated</b>                       | FANCD2 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in FANCD2 knockout HeLa cell line. |               |

**DATA**

|   |  |
|---|--|
| <p><b>Western Blot</b></p>  <p><b>Detection of Human FANCD2 by Western Blot.</b> Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, K562 human chronic myelogenous leukemia cell line, and U2OS human osteosarcoma cell line. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human FANCD2 Monoclonal Antibody (Catalog # MAB9369) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for FANCD2 at approximately 150 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>  | <p><b>Immunohistochemistry</b></p>  <p><b>FANCD2 in Human Tonsil.</b> FANCD2 was detected in immersion fixed paraffin-embedded sections of human tonsil using Rabbit Anti-Human FANCD2 Monoclonal Antibody (Catalog # MAB9369) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p> |
| <p><b>Intracellular Staining by Flow Cytometry</b></p>  <p><b>Detection of FANCD2 in HeLa Human Cell Line by Flow Cytometry.</b> HeLa human cervical epithelial carcinoma cell line was stained with Rabbit Anti-Human FANCD2 Monoclonal Antibody (Catalog # MAB9369, filled histogram) or isotype control antibody (Catalog # MAB1050, open histogram), followed by Phycoerythrin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0110). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.</p> | <p><b>Simple Western</b></p>  <p><b>Detection of Human FANCD2 by Simple Western™.</b> Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line and K562 human chronic myelogenous leukemia cell line, loaded at 0.2 mg/mL. A specific band was detected for FANCD2 at approximately 152 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human FANCD2 Monoclonal Antibody (Catalog # MAB9369). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.</p>   |

**Knockout Validated**



**Western Blot Shows Human FANCD2 Specificity Using Knockout Cell Line.**  
Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and FANCD2 knockout (KO) HeLa cell line. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human FANCD2 Monoclonal Antibody (Catalog # MAB9369) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for FANCD2 at approximately 150 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**PREPARATION AND STORAGE**

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.5 mg/mL in sterile PBS.  |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

**BACKGROUND**

Fanconi anemia group D2 protein, encoded by the FANCD2 gene, is a member of the Fanconi anemia complementation (FANC) group that also includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCE, FANCF, FANCG, and FANCL. The members of the Fanconi anemia complementation group share little sequence similarities.