

Certificate of Analysis
Product: Affinity Purified Anti-FANCA (Rabbit)

Code: 600-401-670

Lot #: 17294CR

Size: 100 µg

Physical State: Liquid (sterile filtered)

Antibody Concentration: 1.45 mg/ml (by UV absorbance at 280 nm)

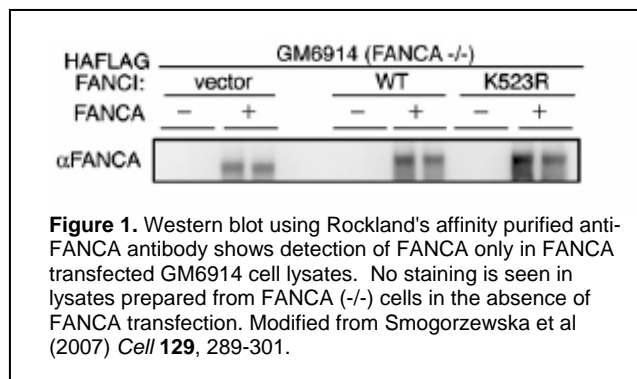
Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

Background Information: FANCA (also called Protein FACA or Fanconi anemia group A protein) is involved in DNA repair, perhaps specifically with post-replication repair or a cell cycle checkpoint function. FANCA may also be implicated in interstrand DNA cross-link repair and in the maintenance of normal chromosome stability. The Fanconi anemia complementation group (FANC) currently includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCD2, FANCE, FANCF, FANCG, and FANCL. The previously defined group FANCH is the same as FANCA. Fanconi anemia is a genetically heterogeneous recessive disorder characterized by cytogenetic instability, hypersensitivity to DNA crosslinking agents, increased chromosomal breakage, and defective DNA repair. The members of the Fanconi anemia complementation group do not share sequence similarity; they are related by their assembly into a common nuclear protein complex. This gene encodes the protein for complementation group A. Alternative splicing results in multiple transcript variants encoding different isoforms. Variant 1 (isoform a) encodes the longest transcript. Variant 2 (isoform b) contains an alternate exon, which results in an early stop codon, compared to variant 1. Isoform b has a shorter C-terminus when compared to isoform a. Mutations in this gene are the most common cause of Fanconi anemia.



Application Note(s): This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a main band at approximately 163 kDa in size corresponding to FANCA by western blotting in the appropriate cell lysate or extract or human tissue.

Recommended Dilutions:	ELISA	1:15,000 - 1:60,000
	WESTERN BLOT	1:500 - 1:3,000
	IF MICROSCOPY	User Optimized
	OTHER APPLICATION	User Optimized

Purity and Specificity: This affinity-purified antibody is directed against human FANCA protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with FANCA protein from human and chimpanzee based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.

Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 995-1009 of human FANCA protein.

Relevant Links: NCBI - [NP_000126](https://pubmed.ncbi.nlm.nih.gov/160126/)

 Swiss-Prot - [O15360](https://www.uniprot.org/uniprot/O15360)

Specific References:

Smogorzewska, A., Matsuoka, S., Vinciguerra, P., McDonald, E.R. 3rd, Hurov, K.E., Luo, J., Ballif, B.A., Gygi, S.P., Hofmann, K., D'Andrea, A.D. and Elledge, S.J. (2007) Identification of the FANCI protein, a monoubiquitinated FANCD2 paralog required for DNA repair. *Cell* **129**, 289-301.

General References:

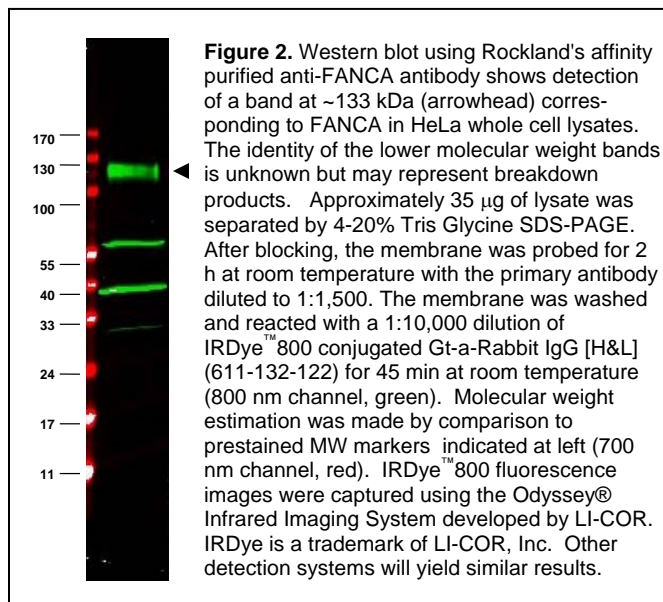
Ferrer, M., Rodriguez, J.A., Spierings, E.A., de Winter, J.P., Giaccone, G. and Kruyt, F.A. (2005) Identification of multiple nuclear export sequences in Fanconi anemia group A protein that contribute to CRM1-dependent nuclear export. *Hum. Mol. Genet.* **14** (10), 1271-1281.

Thompson, E., Dragovic, R.L., Stephenson, S.A., Eccles, D.M., Campbell, I.G. and Dobrovic, A. (2005) A novel duplication polymorphism in the FANCA promoter and its association with breast and ovarian cancer. *BMC Cancer* **5** (1), 43.

Mi, J. and Kupfer, G.M. (2005) The Fanconi anemia core complex associates with chromatin during S phase. *Blood* **105** (2), 759-766.

Rogers, C.D., Couch, F.J., Brune, K., Martin, S.T., Philips, J., Murphy, K.M., Petersen, G., Yeo, C.J., Hruban, R.H. and Goggins, M. (2004) Genetics of the FANCA gene in familial pancreatic cancer. *J. Med. Genet.* **41** (12), E126.

Park, S.J., Ciccone, S.L., Beck, B.D., Hwang, B., Freie, B., Clapp, D.W. and Lee, S.H. (2004) Oxidative stress/damage induces multimerization and interaction of Fanconi anemia proteins. *J. Biol. Chem.* **279** (29), 30053-30059.

**Related Products:**

600-401-670	Anti-Human FANCA (Rabbit)
600-401-672	Anti-Human FANCC (Rabbit)
600-401-673	Anti-Human FANCE (Rabbit)
200-401-674	Anti-Human FANCF (Rabbit)
600-401-671	Anti-Human FANCG (Rabbit)
#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10
#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10
#B501-0500	500 g BLOTTO
#BSA-30	500 ml 30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer)
#B304	10 ml NORMAL GOAT SERUM (NGS)
#MB-070	Blocking Buffer for Fluorescent Western Blotting
#KIA-003	MaxTag™ Anti-RABBIT IgG Kit for Immunoblotting

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.