# FANCG Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

## PRODUCT OVERVIEW

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| **Product Name** | FANCG, Blocking Peptide |
| **Full Product Name** | FANCG Blocking Peptide |
| **Product Gene Name** | FANCG blocking peptide |
| **Product Synonym Names** | DNA repair protein XRCC9; FAG; FANCG; FANCG_HUMAN; Fanconi anaemia complementation group G; Fanconi anemia group G protein; Protein FACG; X ray repair, complementing defective, in Chinese hamster cells 9; X-ray repair, complementing defective, in Chinese hamster, 9; XRCC9 |
| **Form/Format** | Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml. |
| **Purity/Purification** | The purity is >90%,tested by HPLC and MS. |
| **Preparation and Storage** | Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C. |
| **Antibody/Peptide Pairs** | FANCG peptide (MBS9614546) is used for blocking the activity of FANCG antibody (MBS9612536) |
| **Molecular Weight** | 68,554 Da |
| **Chromosome Location** | Chromosome: 9; NC_000009.11 (35073835..35080013, complement). Location: 9p13 |
| **OMIM** | 602956 |
| **Supply Chain Verification** | Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire. |
| **Notes** | For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg) |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Applications Tested/Suitable for FANCG blocking peptide** | Blocking/Control |
| **Related Product Information for FANCG blocking peptide** | Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody. |
| **Other Notes** | Small volumes of FANCG blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for FANCG purchase** | MBS9614546 is a blocking peptide targeting FANCG. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FANCG. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 4759336 |
| **NCBI GeneID** | 2189 |
| **NCBI Accession #** | NP_004620.1 |
| **UniProt Primary Accession #** | O15287 |

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| **UniProt Related Accession #** | O15287 |
| **GenBank Nucleotide #** | NM_004629.1 |
| **NCBI Official Full Name** | Fanconi anemia group G protein |
| **NCBI Official Synonym Full Names** | Fanconi anemia, complementation group G |
| **NCBI Official Symbol** | FANCG |
| **NCBI Official Synonym Symbols** | FAG; XRCC9 |
| **UniProt Protein Name** | Fanconi anemia group G protein |
| **UniProt Synonym Protein Names** | DNA repair protein XRCC9 |
| **Protein Family** | Fanconi anemia group G protein |
| **UniProt Gene Name** | FANCG |
| **UniProt Synonym Gene Names** | XRCC9; Protein FACG |
| **UniProt Entry Name** | FANCG_HUMAN |
| **NCBI Protein Information** | Fanconi anemia group G protein; DNA repair protein XRCC9; X-ray repair, complementing defective, in Chinese hamster, 9; X-ray repair complementing defective repair in Chinese hamster cells 9 |
| **NCBI Summary for FANCG** | The Fanconi anemia complementation group (FANC) currently includes FANCA, FANCB, FANCC, FANCD1 (also called BRCA2), FANCD2, FANCE, FANCF, FANCG, FANCI, FANCJ (also called BRIP1), FANCL, FANCM and FANCN (also called PALB2). 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 G. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for FANCG** | FANCG: DNA repair protein that may operate in a postreplication repair or a cell cycle checkpoint function. May be implicated in interstrand DNA cross-link repair and in the maintenance of normal chromosome stability. Candidate tumor suppressor gene. Defects in FANCG are a cause of Fanconi anemia complementation group G (FANCG). A disorder affecting all bone marrow elements and resulting in anemia, leukopenia and thrombopenia. It is associated with cardiac, renal and limb malformations, dermal pigmentary changes, and a predisposition to the development of malignancies. At the cellular level it is associated with hypersensitivity to DNA-damaging agents, chromosomal instability (increased chromosome breakage) and defective DNA repair.<br><br>Protein type: DNA repair, damage<br><br>Chromosomal Location of Human Ortholog: 9p13<br><br>Cellular Component: nucleoplasm; mitochondrion; cytoplasm; nucleolus; plasma membrane<br><br>Molecular Function: protein binding; damaged DNA binding<br><br>Biological Process: mitochondrion organization and biogenesis; response to radiation; ovarian follicle development; DNA repair; cell cycle checkpoint; spermatid development<br><br>Disease: Fanconi Anemia, Complementation Group G; Tracheoesophageal Fistula With Or Without Esophageal Atresia |
| **Research Articles on FANCG** | **1.** Areca nut extracts-induced miR-23a was correlated with a reduced FANCG expression and DSB repair, which might contribute to ANE-associated human malignancies. |
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