

## Product datasheet for SC322497

### XPG (ERCC5) (NM\_000123) Human Untagged Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                          |
| Product Name:             | XPG (ERCC5) (NM_000123) Human Untagged Clone |
| Tag:                      | Tag Free                                     |
| Symbol:                   | XPG  |
| Synonyms:                 | COFS3; ERCC5-201; ERCM2; UVDR; XPG; XPGC     |
| Mammalian Cell Selection: | Neomycin                                     |
| Vector:                   | pCMV6-AC (PS100020)                          |
| E. coli Selection:        | Ampicillin (100 ug/mL)                       |

Fully Sequenced ORF: >OriGene sequence for SC322497  
 TCGCGACCCACCAGCGAAGGCGGGAGGTGTCGCAGGGACATCTTCTGGCTGTTCCGTCG  
 CCTGCGTGGCCCTTGACCCCGTCTTCCATTAGCGGCGCAGACGTTTGGCCTAAGCGC  
 TGGGCGAGGCGAGGCCCTGCCCTCCCGCCAACGGCCATTCTCTGGACCTGTCTTTCTT  
 CCGGGAGCGGTGACAGCTGCTGAGACGTGTTGCAGCCAGAGTCTCTCCGCTTAAATGCG  
 CTCCCATTAGTGCCGTCCTCCACTGAAAAACGTGGCTTCTGTATTATTTGCCATCTTTG  
 TTGTGTAGGAGCAGGGAGGGCTTCTCCGGGGTCTAGGCGGCGGTGCAGTCCGTCGTA  
 GAAGAATTAGAGTAGAAGTTGTGGGGTCCGCTCTTAGGACGCAGCCGCTCATGGGGGT  
 CCAGGGGCTTGGAAGCTGCTGGAGTCTCCGGGCGCAGGTGAGCCCGAAGCGCTGGA  
 AGGAAGATCCTGGCTGTTGATATTAGCATTGGTTAAACCAAGCACTTAAAGGAGTCCG  
 GGATCGCCACGGAACTCAATAGAAAATCTCATCTTCTCACTTTGTTTCATCGGCTCTG  
 CAAACTCTATTTTTTCGAATTCGTCCTATTTTTGTGTTGATGGGGATGCTCCACTATT  
 GAAGAAACAGACTTTGGTGAAGAGAAGGCAGAGAAAGGACTTAGCGTCCAGTGACTCCAG  
 GAAAACGACAGAGAAGCTTCTGAAAACATTTTTGAAAAGACAAGCCATCAAAAAGTGCCTT  
 CAGAAGCAAAAGAGATGAAGCACTACCCAGTCTTACCCAAGTTCGAAGAGAAAACGACCT  
 CTATGTTTTGCCTCCTTTACAAGAGGAAGAAAACACAGTTTCAAGAGGGAAGATGAAAA  
 AGAATGGCAAGAAAGAATGAATCAAAAACAAGCATTACAGGAAGGTTCTTTTATAATCC  
 TCAAGCGATAGATATTGAGTCTGAGGACTTCAGCAGCCTGCCCTGAAGTAAAGCATGA  
 AATCTTGACTGATATGAAAGAGTTCACCAAGCGCAGAAGAATTTTGAAGCAATGCC  
 AGAGAGTCTGATGACTTTTACAGTACCAACTCAAAGGCTTGCTTAAAAAGAACTATCT  
 GAACCAGCATATAGAACATGTCCAAAAGGAAATGAATCAGCAACATTCAGGACACATCCG  
 AAGGCAGTATGAAGATGAAGGGGCTTTCTGAAGGAGGTAGAGTCAAGGAGAGTGGTCTC  
 TGAAGACACTTACATTACATCTTGATAAAAGGTATTCAAGCTAAGACAGTTGCAGAAGT  
 GGATTCAGAGTCTCTTCTTCTCCAGCAAAAATGCACGGCATGTCTTTGACGTGAAGTC  
 ATCTCCATGTGAAAACTGAAGACAGAGAAAGAGCCTGATGCTACCCCTCTTCTCCAAG  
 AACTTTACTAGCTATGCAAGCTGCCCTGCTGGGAAGTAGCTCAGAAGAGGAGCTGGAGAG  
 TAAAAATCGAAGGCAGGCCCGTGGGAGGAACGCACCTGCTGCTGTAGACGAAGGCTCCAT



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ATCACCCCGACTCTTTAGCCATTAAGAGAGCTCTTGACGATGACGAAGATGTAAAAGT  
 GTGTGCTGGGGATGATGTGCAGACGGGAGGCCAGGAGCAGAAGAAATGCGTATAAACAG  
 CTCCACCAGAACAGTGATGAAGGACTTAAAGTGAGAGATGGAAAAGGAATACCGTTTAC  
 TGCAACACTTGGCGTATCTAGTGTGAACCTGCAGAGGAGCACGTAGCCAGCACTAATGA  
 GGGGAGAGAGCCACAGACTCAGTTCCAAAAGAACAAATGTCACCTGTTACGTGGGGAC  
 TGAAGCCTTTCCGATAAGTGATGAGTCTATGATTAAGGACAGAAAAGATCGGCTGCCTCT  
 GGAGAGTGCAGTGGTTAGACATAGTGACGCACCTGGGCTCCCGAATGGAAGGGAACCTGAC  
 ACCGGCATCTCCAACCTGTACAAATTCTGTGTCAAAAGAATGAAACACATGCTGAAGTGCT  
 TGAGCAGCAGAACGAACCTTTGCCATATGAGAGTAAATTCGATTCTTCTCTTTCAAG  
 TGATGATGAAACAAAATGTAAACCGAATTCTGCTTCTGAAGTCATTGGCCCTGTCAGTTT  
 GCAAGAAACAAGTAGCATAGTAAGTGTCCCTTCAGAGGCAGTAGATAATGTGAAAATGT  
 GGTGTCATTTAATGCTAAAGAGCATGAGAATTTTCTGAAAACCATCCAAGAACAGCAGAC  
 CACTGAATCTGCAGGCCAGGATTTAATTTCCATTCCAAGGCCGTGGAACCAATGAAAAT  
 TGACTCGAAGAAAGTGAATCTGATGGAAGTTTCATTGAAGTGCAAAGTGTGATTAGTGA  
 TGAGGAACCTCAAGCAGAATTCCTGAACTTCCAACCTCCCTCAGAACAAGGCGAAGA  
 GAACTGGTAGGAACTAGGGAGGAGAAGCCCCTGCTGAGTCCGAGAGCCCTCAGGGA  
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 TTCGCTCCATGAATGGCAAGATATTAATTTGGAGGAGTTGAAAACCTCTGGAGAGCAACCT  
 CTTAGCACAGCAGAATTCAGTAAAGCTCAAAAACAGCAGCAAGAACGGATCGCTGCTAC  
 TGTACCCGGACAGATGTTCTGGAAAGCCAGGAACTCCTGCGCCTGTTCCGGCATTCCCTA  
 CATCCAGGCTCCCATGGAAGCAGAGGCGCAGTGCGCCATCCTGGACCTGACTGATCAGAC  
 TTCCGGAACCATCACTGATGACAGTGATATCTGGCTGTTTGGAGCGCGCATGCTATAG  
 AAATTTTTTAAATAAAAACAAGTTTGTAGAATATTATCAATATGTGGACTTTCACAAATCA  
 ATTGGGATTGGACCGGAATAAGTTAATAAATTTGGCTTATTTGCTTGAAGTGATTATAC  
 CGAAGGAATACCAACTGTGGTTGTGTAACCGCCATGGAATTTCTCAATGAATTCCTGG  
 GCATGGCTGGAACCTCTCCTAAAATTCTCAGAAATGGTGGCATGAAGCTCAAAAAATCC  
 AAAGATAAGACCTAATCCTCATGACACCAAAGTGAATAAAAAATACGGACATTGCAACT  
 CACCCCTGGCTTTCCTAACCCAGCTGTTGCCGAGGCTACCTCAAACCCGTGGTGGATGA  
 CTCGAAGGGATCCTTTCTGTGGGGAAACCTGATCTCGACAAAATTAGAGAATTTGTCA  
 GCGGTATTTCCGGTGAACAGAACGAAGACAGATGAATCTCTGTTTCTGTATTAAGCA  
 ACTCGATGCCAGCAGACACAGTCCGAATTGATTCTTCTTTAGATTAGCACAAACAGGA  
 GAAAGAAGATGCTAAACGTATTAAAGAGCCAGAGACTAAACAGAGCTGTGACATGTATGCT  
 AAGGAAAGAGAAAAGAACGACGAGCCAGCGAAATAGAAGCAGTTTCTGTTGCCATGGAGAA  
 AGAATTTGAGCTACTTGATAAGGCAAAACGAAAACCCAGAAGAGAGGCATAACAATAC  
 CTTAGAAGAGTCAATCAAGCCTGAAAAGAAAGAGGCTTTTCCAGATTCTAAACGAAAAGATAC  
 ATGCGGTGGATTTTTGGGGGAGACCTGCCTCTCAGAAATCATCTGATGGATCTTCAAGTGA  
 AGATGCTGAAAGTTCATCTTTAATGAATGTACAAAGGAGAACAGCTGCGAAAGAGCCAAA  
 AACCAAGTCTTCCAGATTCGCAGAACTCAGTGAAGGAAGCTCCCGTGAAGAATGGAGGTGC  
 GACCACCAGCAGCTCTAGTGATAGTGATGACGATGGAGGAAAGAGAAGATGGTCTCCTG  
 GACCGCCAGATCTGTGTTTGGGAAGAAAAGAAAGAACTAAGACGTGCGAGGGGAAGAAA  
 AAGGAAAACCTAATTAATAAATATGTATCCTCTATAATTAGTTATGACAGCCATTTGTAA  
 TGAATTTGTCGAAAGACGTAATAAATTAAGTGGTAGCACGGTAAAAAAAAAAAAAAAAAA  
 AA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_000123

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

|                               |   |
|-------------------------------|---|
| <b>OTI Annotation:</b>        | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.  |
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_000123.2</a> , <a href="#">NP_000114.2</a>   |
| <b>RefSeq Size:</b>           | 4100 bp   |
| <b>RefSeq ORF:</b>            | 3561 bp   |
| <b>Locus ID:</b>              | 2073  |
| <b>UniProt ID:</b>            | <a href="#">P28715</a>  |
| <b>Cytogenetics:</b>          | 13q33.1   |
| <b>Domains:</b>               | HhH2, XPG_N, XPG_I  |
| <b>Protein Families:</b>      | Druggable Genome, Stem cell - Pluripotency, Transcription Factors   |
| <b>Protein Pathways:</b>      | Nucleotide excision repair  |
| <b>Gene Summary:</b>          | <p>This gene encodes a single-strand specific DNA endonuclease that makes the 3' incision in DNA excision repair following UV-induced damage. The protein may also function in other cellular processes, including RNA polymerase II transcription, and transcription-coupled DNA repair. Mutations in this gene cause xeroderma pigmentosum complementation group G (XP-G), which is also referred to as xeroderma pigmentosum VII (XP7), a skin disorder characterized by hypersensitivity to UV light and increased susceptibility for skin cancer development following UV exposure. Some patients also develop Cockayne syndrome, which is characterized by severe growth defects, cognitive disability, and cachexia. Read-through transcription exists between this gene and the neighboring upstream BIVM (basic, immunoglobulin-like variable motif containing) gene. [provided by RefSeq, Feb 2011]</p> |