

Product datasheet for **RC402001**

XPD (ERCC2) (NM_000400) Human Mutant ORF Clone

Product data:

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| Product Type: | Mutant ORF Clones |
| Product Name: | XPD (ERCC2) (NM_000400) Human Mutant ORF Clone |
| Mutation Description: | C259Y |
| Affected Codon#: | 259 |
| Affected NT#: | 776 |
| Nucleotide Mutation: | ERCC2 Mutant (C259Y), Myc-DDK-tagged ORF clone of Homo sapiens excision repair cross-complementing rodent repair deficiency, complementation group 2 (ERCC2), transcript variant 1 as transfection-ready DNA |
| Effect: | Trihohiodysrophy |
| Symbol: | ERCC2 |
| Synonyms: | COFS2; EM9; TFIH; TTD; TTD1; XPD |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| Tag: | Myc-DDK |
| ACCN: | NM_000400 |
| ORF Size: | 2280 bp |
| Restriction Sites: | Sgfl-Mlul |



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ORF Nucleotide
Sequence:

>RC402001 representing NM_000400
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGCTCAACGTGGACGGGCTCTGGTCTACTTCCCGTACGACTACATCTACCCCGAGCAGTTCTCCT
ACATGCCGGGAGCTCAAACGCACGCTGGACGCCAAGGGTATGGAGTCTGGAGATGCCCTCAGGCACCGG
GAAGACAGTATCCCTGTTGGCCCTGATCATGGCATACAGAGAGCATATCCGCTGGAGGTGACCAAACCT
ATCTACTGCTCAAGAAGTGTGCCAGAGATTGAGAAGGTGATTGAAGAGCTTCGAAAGTTGCTCAACTTCT
ATGAGAAGCAGGAGGGCGAGAAGCTGCCGTTTCTGGGACTGGCTCTGAGCTCCCGCAAAAATTGTGTAT
TCACCTGAGGTGACACCCCTGCGCTTTGGGAAGGACGTCGATGGGAAATGCCACAGCCTCACAGCCTCC
TATGTGCGGGCGCAGTACCAGCATGACACCAGCCTGCCCACTGCCGATTCTATGAGGAATTTGATGCC
ATGGGCGTGAGGTGCCCTCCCGCTGGCATCTACAACCTGGATGACCTGAAGGCCCTGGGGCGGCCA
GGGCTGGTGCCATACTTCTTGTCTGATACTCAATCCTGCATGCCAATGTGGTGGTTTATAGCTACCAC
TACCTCCTGGACCCCAAGATTGCAGACCTGGTGTCCAAGGAACTGGCCCGCAAGGCCGTCGTGGTCTTCG
ACGAGGCCACAACTTGACAACGTCTGCATCGACTCCATGAGCGTCAACCTCACCCGCCGACCCCTTGA
CCGGTACCAGGGCAACCTGGAGACCTGCAGAAGACGGTCTCAGGATCAAAGAGACAGACGAGCAGCGC
CTGCGGGACGAGTACCGGCGTCTGGTGGAGGGGCTGCGGGAGGCCAGCGCCGCCCGGGAGACGGACGCC
ACCTGGCAACCCCGTCTGCCGACGAAGTCTGCAGGAGGCGTGCCTGGCTCCATCCGCACGGCCGA
GCATTTCTGGGCTTCTGAGGGCGTCTGGAGTACGTGAAGTGGCGGCTGCGTGTGCAGCATGTGGT
CAGGAGAGCCCGCCCTTCTGAGCGGCTGGCCAGCGCGTGTGCATCCAGCGCAAGCCCTCAGAT
TCTGTGCTGAACGCCTCCGGTCCCTGCTGATACTCTGGAGATCACCGACCTTGTGACTTCTCCCGCT
CACCTCCTTGCTAACTTTGCCACCCTTGTGACACCTACGCCAAAGGCTTACCATCATCATCGAGCC
TTTGACGACAGAACCCCGACCATTGCCAACCCATCCTGCACTTCAGCTGCATGGACGCCTCGTGGCCA
TCAAACCCGATTTGAGCGTTTCCAGTCTGTCATCATCACATCTGGGACACTGTCCCGCTGGACATCTA
CCCCAAGATCCTGGACTTCCACCCCGTACCATGGCAACCTTACCATGACGCTGGCACGGGTCTGCCTC
TGCCCTATGATCATCGGCCGTGGCAATGACCAGGTGGCCATCAGCTCAAATTTGAGACCCGGGAGGATA
TTGCTGTGATCCGGAATATGGGAACCTCCTGCTGGAGATGTCGCTGTGGTCCCTGATGGCATCGTGGC
CTTCTTACCAGTACCAGTACATGGAGAGACCGTGGCTCCTGGTATGAGCAGGGGATCCTTGAGAAC
ATCCAGAGGAACAAGCTGCTCTTTATTGAGACCAGGATGGTGGCGAAACAGTGTGCCCTGGAGAAGT
ACCAGGAGGCCTGCGAGAATGGCCGCGGGGCCATCCTGCTGTGAGTGGCCCGGGGCAAAGTGTCCGAGGG
AATCGACTTTGTGACCACTACGGGCGGGCCGTATCATGTTTGGCGTCCCTACGTCTACACACAGAGC
CGCATTCTCAAGGCGGGCTGGAATACCTGCGGGACCAGTTCAGATTCGTGAGAATGACTTTCTTACCT
TCGATGCCATGCGCCACGCGGCCAGTGTGTGGTTCGGCCATCAGGGGCAAGACGGACTACGGCCTCAT
GGTCTTTGCCGACAAGCGGTTTGCCTGGGGACAAGCGGGGAAGTGCCTCCGCTGGATCCAGGAGCAC
CTCACAGATGCCAACCTCAACCTGACCGTGGACGAGGGTGTCCAGGTGGCCAAGTACTTCTGCGGCAGA
TGGCACAGCCCTTCCACCGGGAGGATCAGCTGGCCTGTCCCTGCTCAGCCTGGAGCAGTAGAATCAGA
GGAGACGCTGAAGAGGATAGAGCAGATTGCTCAGCAGCTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402001 representing NM_000400
 Red=Cloning site Green=Tags(s)

MKLNVDGLLVYFPYDIYPEQFSYMRELKRTLDAKGHVLEMPSTGKTVSLALIMAYQRAYPLEVTKL
 IYCSRTVPEIEKVIEELRKLNFYEKQEGEKL PFLGLALSSRNLCIHPEVTPFRFGKDVGKCHSLTAS
 YVRAQYQHDTSLPHCRFYEEFDAHGREVPLPAGIYNLDDLKALGRRQGWCPYFLARYSILHANVVVSYH
 YLLDPKIALVSKELARKAVVVFDEAHNIDNVCIDSMSVNL TRRTLDRYQGNLETLQKTVLRRIKETDEQR
 LRDEYRRLVEGLREASAARETDAHLANPVL PDEVLQEAVPGSIRTAEHFLGFLRRLLEYVKWRLRVQHVV
 QESPPAFLSGLAQRVCIQRKPLRFCAERLRSLLHLEITDLADF SPLTLLANFATLVSTYAKGFTIIIEP
 FDDRTPTIANPILHFSCMDASLAIKPVFERFQSVIITSGLSPLDIYPKILDFHPVTMATFTMTLARVCL
 CPMIIGRGNDQVAISSKFETREDIAVIRNYGNLLEMSAVVPDGIVAFFTSYQYMESTVASWYEQGILEN
 IQRNKLLFIETQDGAETSVALEKYQEACENGRGAILLSVARGKVSEGIDFVHHYGRAVIMFGVPYVYTQS
 RILKARLEYLRDQFQIRENDFLTFDAMRHAACVGRAIRGKTDYGLMVFADKRFARGDKRGLPRWIQEH
 LTDANLNLTVDEGVQVAKYFLRQMAQPFHREDQLGLSLLSLEQLESEETLKRIEQIAQQQL

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



OTI Disclaimer:

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation:

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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|--------------------------|--|
| Components: | 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). |
| RefSeq: | NP_000391 |
| RefSeq Size: | 2280 bp |
| RefSeq ORF: | 2283 bp |
| Locus ID: | 2068 |
| Cytogenetics: | 19q13.32 |
| Domains: | DEXDc2, HELICc2 |
| Protein Families: | Druggable Genome, Transcription Factors |
| Protein Pathways: | Nucleotide excision repair |
| MW: | 83.6 kDa |
| Gene Summary: | <p>The nucleotide excision repair pathway is a mechanism to repair damage to DNA. The protein encoded by this gene is involved in transcription-coupled nucleotide excision repair and is an integral member of the basal transcription factor BTF2/TFIIH complex. The gene product has ATP-dependent DNA helicase activity and belongs to the RAD3/XPD subfamily of helicases. Defects in this gene can result in three different disorders, the cancer-prone syndrome xeroderma pigmentosum complementation group D, trichothiodystrophy, and Cockayne syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]</p> |