

Product datasheet for **RC402030**

XPD (ERCC2) (NM_000400) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	XPD (ERCC2) (NM_000400) Human Mutant ORF Clone
Mutation Description:	A725P
Affected Codon#:	725
Affected NT#:	2173
Nucleotide Mutation:	ERCC2 Mutant (A725P), 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:

>RC402030 representing NM_000400
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGCTCAACGTGGACGGGCTCTGGTCTACTTCCCGTACGACTACATCTACCCGAGCAGTTCTCCT
ACATGCGGGAGCTCAAACGCACGCTGGACGCCAAGGGTATGGAGTCTGGAGATGCCCTCAGGCACCG
GAAGACAGTATCCCTGTTGGCCCTGATCATGGCATACAGAGAGCATATCCGCTGGAGGTGACCAAACCT
ATCTACTGCTCAAGAACTGTGCCAGAGATTGAGAAGGTGATTGAAGAGCTTCGAAAGTTGCTCAACTTCT
ATGAGAAGCAGGAGGGCGAGAAGCTGCCGTTTCTGGGACTGGCTCTGAGCTCCCGCAAAAATTGTGTAT
TCACCTGAGGTGACACCCCTGCGCTTTGGGAAGGACGTCGATGGGAAATGCCACAGCCTCACAGCCTCC
TATGTGCGGGCGCAGTACCAGCATGACACCAGCCTGCCCACTGCCGATTCTATGAGGAATTTGATGCC
ATGGGCGTGAGGTGCCCTCCCGCTGGCATCTACAACCTGGATGACCTGAAGGCCCTGGGGCGGCCA
GGGCTGGTGCCATACTTCTTGTCTGATACTCAATCCTGCATGCCAATGTGGTGGTTTATAGCTACCAC
TACCTCCTGGACCCCAAGATTGCAGACCTGGTGTCCAAGGAACTGGCCCGCAAGGCCGTCGTGGTCTTCG
ACGAGGCCACAACTTGACAACGTCTGCATCGACTCCATGAGCGTCAACCTCACCCGCCGACCCCTTGA
CCGGTGCCAGGGCAACCTGGAGACCTGCAGAAGACGGTCTCAGGATCAAAGAGACAGACGAGCAGCGC
CTGCGGGACGAGTACCGCGCTCTGGTGGAGGGGCTGCGGGAGGCCAGCGCCGCCCGGGAGACGGACGCC
ACCTGGCAACCCCGTCTGCCGACGAAGTCTGCAGGAGGACGTCCTGGCTCCATCCGCACGGCCGA
GCATTTCTGGGCTTCTGAGGGCGTCTGGAGTACGTGAAGTGGCGGCTGCGTGTGCAGCATGTGGT
CAGGAGAGCCCGCCCTTCTGAGCGGCTGGCCAGCGCGTGTGCATCCAGCGCAAGCCCTCAGAT
TCTGTGCTGAACGCCTCCGGTCCCTGCTGATACTCTGGAGATCACCGACCTTGTGACTTCTCCCGCT
CACCTCCTTGCTAACTTTGCCACCCTTGTGACACCTACGCCAAAGGCTTACCATCATCATCGAGCC
TTTGACGACAGAACCCCGACCATTGCCAACCCATCCTGCACTTCAGCTGCATGGACGCCTCGTGGCCA
TCAAACCCGATTTGAGCGTTTCCAGTCTGTCATCATCACATCTGGGACACTGTCCCGCTGGACATCTA
CCCAAGATCCTGGACTTCCACCCCGTACCATGGCAACCTTACCATGACGCTGGCACGGGTCTGCCTC
TGCCCTATGATCATCGGCCGTGGCAATGACCAGGTGGCCATCAGCTCAAATTTGAGACCCGGGAGGATA
TTGCTGTGATCCGGAATATGGGAACCTCCTGCTGGAGATGTCGCTGTGGTCCCTGATGGCATCGTGGC
CTTCTTACCAGTACCAGTACATGGAGAGACCGTGGCTCCTGGTATGAGCAGGGGATCCTTGAGAAC
ATCCAGAGGAACAAGCTGCTCTTTATTGAGACCAGGATGGTGGCGAAACAGTGTGCCCTGGAGAAGT
ACCAGGAGGCCTGCGAGAATGGCCGCGGGGCCATCCTGCTGTCAGTGGCCCGGGGCAAAGTGTCCGAGGG
AATCGACTTTGTGACCACTACGGGCGGGCCGTATCATGTTTGGCGTCCCTACGTCTACACACAGAGC
CGCATTCTCAAGGCGGGCTGGAATACCTGCGGGACAGTTCCAGATTCGTGAGAATGACTTTCTTACCT
TCGATGCCATGCGCCACGCGCCAGTGTGTGGTTCGGCCATCAGGGGCAAGACGGACTACGGCCTCAT
GGTCTTTGCCGACAAGCGGTTTGCCTGGGGACAAGCGGGGAAGTGCCTCCGCTGGATCCAGGAGCAC
CTCACAGATGCCAACCTCAACCTGACCGTGGACGAGGGTGTCCAGGTGGCCAAGTACTTCTGCGGCAGA
TGCCACAGCCCTTCCACCGGAGGATCAGCTGGCCTGTCCCTGCTCAGCCTGGAGCAGTAGAATCAGA
GGAGACGCTGAAGAGGATAGAGCAGATTGCTCAGCAGCTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402030 representing NM_000400
 Red=Cloning site Green=Tags(s)

MKLNVDGLLVYFPYDIYPEQFSYMRELKRTLDAKGHVLEMPSTGKTVSLALIMAYQRAYPLEVTKL
 IYCSRTYPEIEKVIEELRKLNFYEKQEGEKL PFLGLALSSRNLCIHPEVTP LRF GKDV D GKCHSLTAS
 YVRAQYQHDTSLPHCRFYEEFDAHGREVPLPAGIYNLDDLKALGRRQGWCPYFLARYSILHANVVVSYH
 YLLDPKIALVSKELARKAVVVFDEAHNIDNVCIDSMSVNL TRRTLDR CQGNLETLQKT VLR IKETDEQR
 LRDEYRRLVEGLREASAARETDAHLANPVL PDEVLQEAVPGSIRTAEHFLGFLRRLLEYVKWRLRVQHVV
 QESPPAFLSGLAQRVCIQRKPLRFCAERLRSLLHLEITDLADFSPLTLLANFATLVSTYAKGFTIIIEP
 FDDRTPTIANPILHFSCMDASLAIKPVFERFQSVIITSGLSPLDIYPKILDFHPVTMATFTMTLARVCL
 CPMIIGRGNDQVAISSKFETREDIAVIRNYGNLLEMSAVVPDGIVAFFTSYQYMESTVASWYEQGILEN
 IQRNKLLFIETQDGAETSVALEKYQEACENGRGAILLSVARGKVSEGIDFVHHYGRAVIMFGVPYVYTQS
 RILKARLEYLRDQFQIRENFLTFDAMRHAACVGRAIRGKTDYGLMVFADKRFARGDKRGLPRWIQEH
 LTDANLNLTVDEGVQVAKYFLRQMPQPFHREDQLGLSLLSLEQLESEETLKRIEQIAQQQL

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.

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:	<u>NP_000391</u>
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>