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Product datasheet for RG215058

XPD (ERCC2) (NM_000400) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	XPD (ERCC2) (NM_000400) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	XPD
Synonyms:	COFS2; EM9; TFIIH; TTD; TTD1; XPD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG215058 representing NM_000400
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGCTCAACGTGGACGGGCTCCTGGTCTACTTCCCGTACGACTACATCTACCCCGAGCAGTTCTCCT
ACATGCGGGAGCTCAAACGCACGCTGGACGCCAAGGGTCATGGAGTCCTGGAGATGCCCTCAGGCACCGG
GAAGACAGTATCCCTGTTGGCCCTGATCATGGCATACCAGAGAGCATATCCGCTGGAGGTGACCAAACTC
ATCTACTGCTCAAGAACTGTGCCAGAGATTGAGAAGGTGATTGAAGAGCTTCGAAAGTTGCTCAACTTCT
ATGAGAAGCAGGAGGGCGAGAAGCTGCCGTTTCTGGGACTGGCTCTGAGCTCCCGCAAAAACTTGTGTAT
TCACCCTGAGGTGACACCCCTGCGCTTTGGGAAGGACGTCGATGGGAAATGCCACAGCCTCACAGCCTCC
TATGTGCGGGCGCAGTACCAGCATGACACCAGCCTGCCCCACTGCCGATTCTATGAGGAATTTGATGCCC
ATGGGCGTGAGGTGCCCCTCCCCGCTGGCATCTACAACCTGGATGACCTGAAGGCCCTGGGGCGGCGCCA
GGGCTGGTGCCCATACTTCCTTGCTCGATACTCAATCCTGCATGCCAATGTGGTGGTTTATAGCTACCAC
TACCTCCTGGACCCCAAGATTGCAGACCTGGTGTCCAAGGAACTGGCCCGCAAGGCCGTCGTGGTCTTCG
ACGAGGCCCACAACATTGACAACGTCTGCATCGACTCCATGAGCGTCAACCTCACCCGCCGGACCCTTGA
CCGGTGCCAGGGCAACCTGGAGACCCTGCAGAAGACGGTGCTCAGGATCAAAGAGACAGACGAGCAGCGC
CTGCGGGACGAGTACCGGCGTCTGGTGGAGGGGCTGCGGGAGGCCAGCGCCGCCCGGGAGACGGACGCCC
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CAGGAGAGCCCGCCCGCCTTCCTGAGCGGCCTGGCCCAGCGCGTGTGCATCCAGCGCAAGCCCCTCAGAT
TCTGTGCTGAACGCCTCCGGTCCCTGCTGCATACTCTGGAGATCACCGACCTTGCTGACTTCTCCCCGCT
CACCCTCCTTGCTAACTTTGCCACCCTTGTCAGCACCTACGCCAAAGGCTTCACCATCATCATCGAGCCC
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TGCCCTATGATCATCGGCCGTGGCAATGACCAGGTGGCCATCAGCTCCAAATTTGAGACCCGGGAGGATA
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CTTCTTCACCAGCTACCAGTACATGGAGAGCACCGTGGCCTCCTGGTATGAGCAGGGGATCCTTGAGAAC
ATCCAGAGGAACAAGCTGCTCTTTATTGAGACCCAGGATGGTGCCGAAACCAGTGTCGCCCTGGAGAAGT
ACCAGGAGGCCTGCGAGAATGGCCGCGGGGCCATCCTGCTGTCAGTGGCCCGGGGCAAAGTGTCCGAGGG
AATCGACTTTGTGCACCACTACGGGCGGGCCGTCATCATGTTTGGCGTCCCCTACGTCTACACACAGAGC
CGCATTCTCAAGGCGCGGCTGGAATACCTGCGGGACCAGTTCCAGATTCGTGAGAATGACTTTCTTACCT
TCGATGCCATGCGCCACGCGGCCCAGTGTGTGGGTCGGGCCATCAGGGGCAAGACGGACTACGGCCTCAT
GGTCTTTGCCGACAAGCGGTTTGCCCGTGGGGACAAGCGGGGGAAGCTGCCCCGCTGGATCCAGGAGCAC
CTCACAGATGCCAACCTCAACCTGACCGTGGACGAGGGTGTCCAGGTGGCCAAGTACTTCCTGCGGCAGA
TGGCACAGCCCTTCCACCGGGAGGATCAGCTGGGCCTGTCCCTGCTCAGCCTGGAGCAGCTAGAATCAGA
GGAGACGCTGAAGAGGATAGAGCAGATTGCTCAGCAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

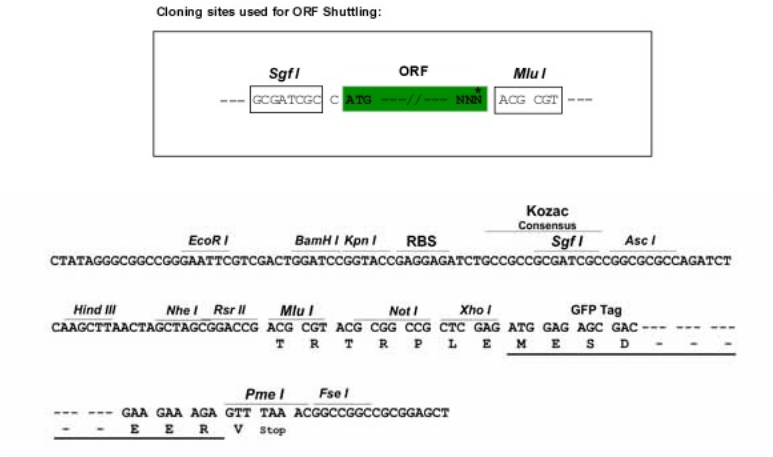
>RG215058 representing NM_000400
Red=Cloning site Green=Tags(s)

MKLNVDGLLVYFPYDYIYPEQFSYMRELKRTLDAKGHGVLEMPSGTGKTVSLLALIMAYQRAYPLEVTKL
IYCSRTVPEIEKVIEELRKLLNFYEKQEGEKLPFLGLALSSRKNLCIHPEVTPLRFGKDVDGKCHSLTAS
YVRAQYQHDTSLPHCRFYEEFDAHGREVPLPAGIYNLDDLKALGRRQGWCPYFLARYSILHANVVVYSYH
YLLDPKIADLVSKELARKAVVVFDEAHNIDNVCIDSMSVNLTRRTLDRCQGNLETLQKTVLRIKETDEQR
LRDEYRRLVEGLREASAARETDAHLANPVLPDEVLQEAVPGSIRTAEHFLGFLRRLLEYVKWRLRVQHVV
QESPPAFLSGLAQRVCIQRKPLRFCAERLRSLLHTLEITDLADFSPLTLLANFATLVSTYAKGFTIIIEP
FDDRTPTIANPILHFSCMDASLAIKPVFERFQSVIITSGTLSPLDIYPKILDFHPVTMATFTMTLARVCL
CPMIIGRGNDQVAISSKFETREDIAVIRNYGNLLLEMSAVVPDGIVAFFTSYQYMESTVASWYEQGILEN
IQRNKLLFIETQDGAETSVALEKYQEACENGRGAILLSVARGKVSEGIDFVHHYGRAVIMFGVPYVYTQS
RILKARLEYLRDQFQIRENDFLTFDAMRHAAQCVGRAIRGKTDYGLMVFADKRFARGDKRGKLPRWIQEH
LTDANLNLTVDEGVQVAKYFLRQMAQPFHREDQLGLSLLSLEQLESEETLKRIEQIAQQL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000400

ORF Size: 2280 bp

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).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: NM_000400.4

RefSeq Size: 2355 bp

RefSeq ORF: 2283 bp

Locus ID: 2068

UniProt ID: P18074

Cytogenetics: 19q13.32

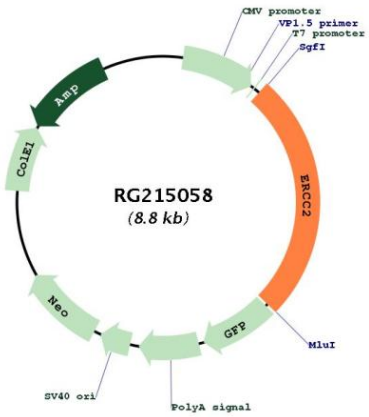
Domains: DEXDc2, HELICc2

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Nucleotide excision repair

Gene Summary: 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]

Product images:



Circular map for RG215058