

Product datasheet for **MC221365**

Ercc2 (NM_007949) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ercc2 (NM_007949) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ercc2
Synonyms:	AA407812; AU020867; AW240756; CXPB; Ercc-2; Mhdarco15; RCO015; XPD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221365 representing NM_007949
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAAGCTCAACGTGGACGGGCTGCTGGTCTACTTCCCCTACGACTACATCTACCCGGAGCAGTTCTCCT
 ACATGCTGGAGCTCAAGCGCACGCTGGACGCCAAGGGTCATGGAGTCTGGAGATGCCCTCGGGCACTGG
 GAAGACAGTGTCCCTATTGGCCCTGATTGTGGCCTATCAGCGGGCTTATCCGCTGGAGGTGACCAAACCT
 ATCTACTGCTCACGGACCGTGCCAGAGATTGAGAAGGTATAGAAGAGCTTCGTAAGCTACTCAGCTTCT
 ACGAGCAGCAGGAGGGCGAGAAGCTGCCGTTCTTAGGACTGGCTCTGAGCTCAAGAAAGAACCTGTGCAT
 TCATCCCGAGGTGACTCCACTGCGCTTTGGGAAGGATGTTGATGGGAAGTGTACAGCCTAACGGCGTCCG
 TATGTGCGGGCACAGTACCAGCAGGATGCCAGCCTGCCTACTGCCGCTTCTATGAGGAATTTGACATCC
 ATGGACGCCAGATGCCGCTCCCTGCGGGCATCTACAACCTGGATGACCTGAAGGCCCTAGGGCAGCGCCA
 GGGCTGGTGCCCTACTTCTGGCTCGATACTCGATCCTGCATGCCAACCTGGTGGTTTACAGCTACCAC
 TACCTCCTGGACCCCAAGATCGCAGACCTGGTATCCAAAGAGCTGGCTCGCAAGGCTGTTGTGGTCTTCG
 ATGAAGCTCACAACATCGACAATGTCTGCATTGACTCCATGAGTGTCAACCTCACCCGCAGGACTCTGGA
 CCGTTGCCAGAGCAACTTAGACACCCTACAGAAGACCGTCTCAGGATCAAGGAGACGGATGAGCAGCGG
 CTGCGGGATGAGTACCGGCGCCTGGTGGAGGGCTGCGGGAGGCCAGTGTGGCCCGGAGACAGATGCC
 ACCTGGCCAACCTGTGCTGCCGACGAGGTGCTGCAGGAGGCTGTGCCTGGCTCCATCCGTACGGCTGA
 GCATTTCTGGGCTTTCTGCGGGCTGCTGGAGTATGTCAAGTGGCGTCTGCGCGTGCAGCATGTGGT
 CAGGAGAGTCCACTGCCCTTCTGAGCGGCTGGCCAGCGGGTGTGCATCCAGCGCAAGCCCCTCAGT
 TCTGTGCTGAACGCCTGCGCTCCCTGCTGCACACCCTGGAGATTGCCACCTGGCCGACTTCTCCCGCT
 CACTCCTTGCTAACTTCGCCACTCTCGTCAGCACTTACGCCAAGGGCTTACCATTATCATTGAGCCC
 TTTGACGACAGGACCCCAACATCGCAACCCGTTCTGCACTTCACTGTATGGACGCCTCCTTGCCA
 TCAAGCCTGTGTTGAGCGCTTCCAGTCTGTCATCATCACTTCTGGGACTGTCCCACTGGACATCTA
 CCCAAGATCCTGGACTTCCACCCTGTCAATGGCAACCTTACCATGACGCTGGCCCGAGTCTGCCTC
 TGCCCGATGATCATTGGCCGTGTAATGACCAGGTAGCAATCAGCTCAAATTTGAGACCAGAGAAGATA
 TTGCTGTGATCCGAAACTATGGCAACCTCCTGCTGGAGATGTCCGCCGTGGTCCCAGATGGCATTGTGGC
 CTTCTTTACCAGTACCAGTACATGAAAGCACCGTGGCCTCCTGGTATGAGCAGGGCATCCTTGAGAAC
 ATCCAGAGGAACAACTGCTCTTATTGAGACCCAGGATGGGGCTGAGACCAGTGTGGCCCTGGAGAAGT
 ACCAAGAGGCATGCGAGAATGGCCGTGGGGCATTCTGCTCTCAGTGGCTCGGGGCAAAGTATCAGAAGG
 GATTGACTTTGTACACCACTACGGACGGCTGTGATCATGTTTGGAGTCCCTATGTCTATACCCAGAGC
 CGAATTCTCAAGGCCCGCTAGAGTATCTGCGGGACAGTTCAGATCCGAGAGAACGACTTCTCACCT
 TTGATGCTATGCGCCATGCAGCCAGTGTGTGGTTCGTGCCATCAGGGGCAAGACGGACTATGGACTCAT
 GGTCTTTGCTGACAAGCGGTTTGTCTCGGGCGACAAGCGTGGTAAGTGCCTCGCTGGATCCAGGAGCAC
 CTGACCGACTCCAACCTCAACCTGACCGTGGATGAGGGTGTACAGGTCCCAAGTACTTCTGCGGCAGA
 TGGCGCAGCCCTCCACCGGGAGGATCAGCTGGCCTGTGCTGCTCAGCCTGGAGCAGTGCAGTCAGA
 GGAGACTACAGCGAATTGAGCAGATCGCACAGCAGCT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_007949
Insert Size: 2283 bp

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).
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:	<ol style="list-style-type: none">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_007949.4 , NP_031975.2
RefSeq Size:	3547 bp
RefSeq ORF:	2283 bp
Locus ID:	13871
UniProt ID:	O08811
Cytogenetics:	7 9.62 cM
Gene Summary:	ATP-dependent 5'-3' DNA helicase, component of the general transcription and DNA repair factor IIH (TFIIH) core complex, which is involved in general and transcription-coupled nucleotide excision repair (NER) of damaged DNA and, when complexed to CAK, in RNA transcription by RNA polymerase II. In NER, TFIIH acts by opening DNA around the lesion to allow the excision of the damaged oligonucleotide and its replacement by a new DNA fragment. The ATP-dependent helicase activity of XPD/ERCC2 is required for DNA opening. In transcription, TFIIH has an essential role in transcription initiation. When the pre-initiation complex (PIC) has been established, TFIIH is required for promoter opening and promoter escape. Phosphorylation of the C-terminal tail (CTD) of the largest subunit of RNA polymerase II by the kinase module CAK controls the initiation of transcription. XPD/ERCC2 acts by forming a bridge between CAK and the core-TFIIH complex. Involved in the regulation of vitamin-D receptor activity. As part of the mitotic spindle-associated MMXD complex it plays a role in chromosome segregation. Might have a role in aging process and could play a causative role in the generation of skin cancers.[UniProtKB/Swiss-Prot Function]