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Product datasheet for RR215076

Ercc3 (NM_001031644) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ercc3 (NM_001031644) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ercc3
Synonyms:	MGC112916
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RR215076 representing NM_001031644
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTAAAAGAGATCGAGTGGACCGCGACAAGAAGAAATCCAAGAAGAGGCAGTATGAAGAGGAAGAGG
AAGACGAAGACGACGCTCCTGGGAACGAGTCTCAGGAAGCGGTGCCCTCAGCCGCTGGGAAACAGGTGGA
CGAATCCAGCACCAAAGTGGATGAATATGGAGCAAAGGACTACAGACAGCAGATGCCACTAAAGGGTGAC
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AATATGCCCAAGACTTCCTGGTGGCAATTGCAGAGCCAGTGTGCCGGCCCACGCATGTACACGAATACAA
GCTGACCGCCTACTCCCTCTATGCAGCTGTCAGTGTTGGGCTGCAGACCAGTGACATCACCGAGTACCTC
AGAAAGCTCAGTAAGACTGGAGTTCCTGATGGAATCATCCAGTTTATTAAGCTGTGCACTGTCAGCTACG
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CAGAAGCGCTGCATCTGCCTAGAGTACCCGCTGTTGGCAGAGTATGACTTCCGGAATGACTCTCTGAACC
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AAGCACGTGCACCCACTTTTCAAACGCTTCAGGAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR215076 representing NM_001031644
Red=Cloning site Green=Tags(s)

MGKRDRVDRDKKKSKKRQYEEEEEDEDDAPGNESQEAVPSAAGKQVDESSTKVDEYGAKDYRQQMPLKGD
HTSRPLWVAPDGHIFLEAFSPVYKYAQDFLVAIAEPVCRPTHVHEYKLTAYSLYAAVSVGLQTSDITEYL
RKLSKTGVPDGIIQFIKLCTVSYGKVKLVLKHNRYFVESSHPDVIQHLLQDPVIRECRLRNAEGEATELI
TETFTSKSAISKTVEGSGGASTSQGVDAQAKSDIPKDLFDFYEQMDKDEEEEEETQTVSFEVKQEMIEEL
QKRCICLEYPLLAEYDFRNDSLNPDINIDLKPTAVLRPYQEKSLRKMFGNGRARSGVIVLPCGAGKSLVG
VTAACTVRKRCLVLGNSAVSVEQWKAQFKMWSTIDDSQICRFTSDAKDKPIGCSIAISTYSMLGHTTKRS
WEAERVMEWLKTQEWGLMILDEVHTIPAKMFRRVLTIVQAHCKLGLTATLVREDDKIVDLNFLIGPKLYE
ANWMELQNNGYIAKVQCAEVWCPMSPEFYREYVAIKTKKRILLYTMNPNKFRACQFLIKFHERRNDKIIV
FADNVFALKEYAIRLNKPYIYGPTSQGERMQILQNFKHNPKINTIFISKVGDTSFDLPEANVLIQISSHG
GSRRQEAQRLGRVLRAKKGMVAEEYNAFFYSLVSQDTQEMAYSTKRQRFLVDQGYSFKVITKLAGMEEEE
LAFSTKEEQQQLLQKVLAATDLDAEEEVVAGEFGSRSGQASRRFGTMSSLSGADDTVYMEYHSSRNKAST
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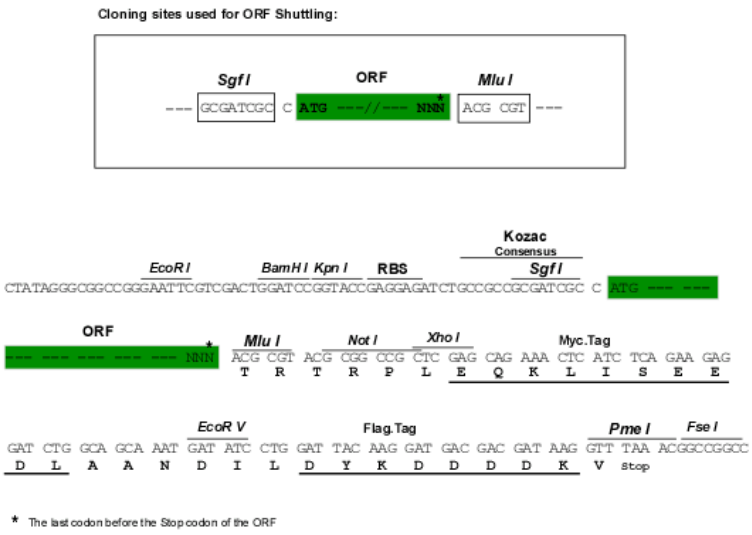
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

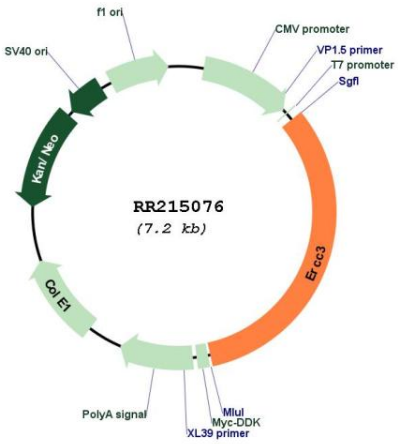
Cloning Scheme:



ACCN:	NM_001031644
ORF Size:	2346 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_001031644.1, NP_001026814.1
RefSeq Size:	2643 bp
RefSeq ORF:	2349 bp
Locus ID:	291703
UniProt ID:	Q4G005
Cytogenetics:	18p12
MW:	89.1 kDa
Gene Summary:	ATP-dependent 3'-5' 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 ATPase activity of XPB/ERCC3, but not its helicase activity, 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. The ATP-dependent helicase activity of XPB/ERCC3 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.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR215076