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Product datasheet for RC200478

ERCC1 (NM_001983) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERCC1 (NM_001983) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ERCC1
Synonyms:	COFS4; RAD10; UV20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200478 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACCCTGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGA
TACCCCTCGACGAGGATGAGGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCC
CACTGTGGACACCTCGGCCCAGGCGGCCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAA
GGGGCTGGGGCCACGTGCCCCACAGGGTCAGAGCCCCTGGCAGGAGAGACGCCCAACCAGGCCCTGAAAC
CCGGGGCAAAATCCAACAGCATCATTGTGAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCGTGCG
CAACGTGCCCTGGGAATTTGGCGACGTAATTCCCGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTC
CTCAGCCTCCGCTACCACAACCTGCACCCAGACTACATCCATGGGCGGCTGCAGAGCCTGGGGAAGAACT
TCGCCTTGCGGGTCCTGCTTGTCCAGGTGGATGTGAAAGATCCCCAGCAGGCCCTCAAGGAGCTGGCTAA
GATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGAGGAAGCTGGGCGGTACCTGGAG
ACCTACAAGGCCTATGAGCAGAAACCAGCGGACCTCCTGATGGAGAAGCTAGAGCAGGACTTCGTCTCCC
GGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCTCCTGACCACATT
TGGATCTCTGGAACAGCTCATCGCCGCATCAAGAGAAGATCTGGCCTTATGCCCAGGCCTGGGCCCTCAG
AAAGCCCGGAGGCTGTTTGATGTCCTGCACGAGCCCTTCTTGAAAGTACCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC200478 protein sequence
Red=Cloning site Green=Tags(s)

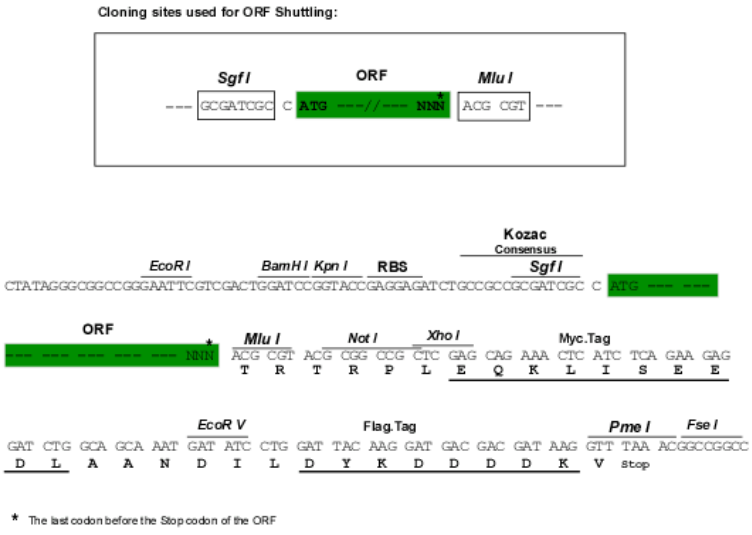
MDPGKDKEGVPQPSGPPARKKFVIPLDEDEVPPGVAKPLFRSTQSLPTVDTSAQAAPQTYAEYAISQPLE
GAGATCPTGSEPLAGETPNQALKPGAKSNSIIVSPRQRGNPVLKFVRNVPWEFGDVIPDYVLGQSTCALF
LSLRYHNLHPDYIHGRLQSLGKNFALRVLLVQVDVKDPQQALKELAKMCILADCTLILAWSPEEAGRYLE
TYKAYEQKPADLLMEKLEQDFVSRVTECLTTVKSVNKTDSQTLLTTFGSLEQLIAASREDLALCPGLGPQ
KARRLFDVLHEPFLKVP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6085_e01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001983

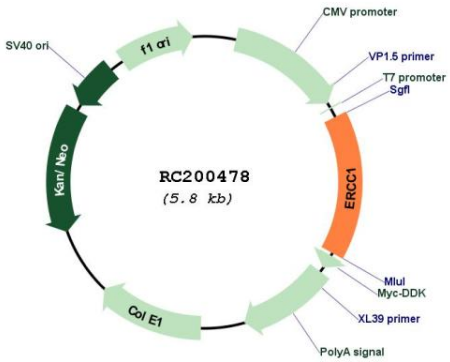
ORF Size: 891 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

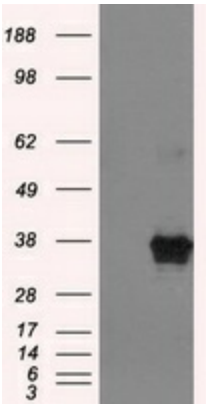
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001983.1
RefSeq Size:	3400 bp
RefSeq ORF:	894 bp
Locus ID:	2067
UniProt ID:	P07992
Cytogenetics:	19q13.32
Domains:	HHH, Rad10
Protein Families:	Druggable Genome
Protein Pathways:	Nucleotide excision repair
MW:	32.6 kDa
Gene Summary:	The product of this gene functions in the nucleotide excision repair pathway, and is required for the repair of DNA lesions such as those induced by UV light or formed by electrophilic compounds including cisplatin. The encoded protein forms a heterodimer with the XPF endonuclease (also known as ERCC4), and the heterodimeric endonuclease catalyzes the 5' incision in the process of excising the DNA lesion. The heterodimeric endonuclease is also involved in recombinational DNA repair and in the repair of inter-strand crosslinks. Mutations in this gene result in cerebrooculofacioskeletal syndrome, and polymorphisms that alter expression of this gene may play a role in carcinogenesis. Multiple transcript variants encoding different isoforms have been found for this gene. The last exon of this gene overlaps with the CD3e molecule, epsilon associated protein gene on the opposite strand. [provided by RefSeq, Oct 2009]

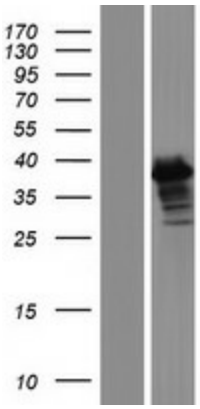
Product images:



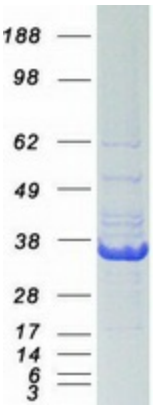
Circular map for RC200478



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ERCC1 (Cat# RC200478, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ERCC1(Cat# [TA500622]). Positive lysates [LY419605] (100ug) and [LC419605] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419605]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200478 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERCC1 protein (Cat# [TP300478]). The protein was produced from HEK293T cells transfected with ERCC1 cDNA clone (Cat# RC200478) using MegaTran 2.0 (Cat# [TT210002]).