

Product datasheet for **MG226479**

Fan1 (NM_177893) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fan1 (NM_177893) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fan1
Synonyms:	6030441H18Rik; mFAN1; Mtmr15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226479 representing NM_177893 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGTCACAAAGGAAATCACCTGATCAAAAAAGACCCCGTAGAAGCTTATCTACCAGCAAACTGCAA
AAAGCCAGTGTCAATTCGATTACTTCGATTTTAAACAGTGCACCACCTGCTAAACTGTCATGTTCAACTTG
TCATAAAATGGTGCCAGGTATGACCTCATTGGCACCTTGATGAGTCTTGCTAACAACGGTGTGGT
GATGACGTTCAAGTAGAGCCTGCTCAGGCTGGATTAATGAGTCCAACGTGCCTACATCAGATTTACCCA
GTGGTCCTTTAGAGAATGTGACACCTCAGAAATTATCACCACAAAGAGAAGTTAATTTCTGTCCAATG
TGGTTCAAACCTGGGCATACAACAGCAGACCAGTCCCTACTTTAAAGATGCCTTAGTGTCCAAGATCAA
AATGAGCTTCAAATCAGAGTGTAGAAATTATGCCTTTGGGAAGTCTGACATCGAAATTGTCAGACGAT
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GCATGCTTCCATATTACTGTCCCTCAGATCAACTCTCGTCAGTAACACGAAATCCTCTCCGGGAGACACT
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ACTCTGATGTACTTGAACCTCTTCTGCTCCTGAGCTGAAAGCCCTGGCCAAAACCTTCACTTGGT



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AGTCCCGGTGGGCGAAGCAGCAGCTGGTAGACGCCTTTCACAACTGGCCAAACAGCGCTCAGTCTGCA
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 GGCCCCAGTGATCGACTTTCATGTAAGCAGATGATCTGGCTGTACGAACCTCAAAAAGCTGGGGGCTGATG
 TAGAAGTGTGCCATGTGGTTGCAGTTGGTGCTAAGAGCAAAGTCTTGGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG226479 representing NM_177893
 Red=Cloning site Green=Tags(s)

MPSQRKSPDQKRRRSLSTSKTAKSQCHSITSYFNSAPPKACSTCHKMVPYDLIRHLDESCANNVVG
 DDVQVEPAQAGLMSPTVPTSDLPSGPLENVTPQKLSPPKRSLISVQCGLGIQQTSFYFKDALVSKDQ
 NELPNQSVIEIMPLGSLTSKLSRRYLNAKSLAKNEGLASQCPQTSPTPGTSLTDNCPMEDKDEVLNSS
 QKENIYSCAPLKEENASEQKVKNKNTGDESQKASCGEPALTPASAEHASILLSSDSTLVSNTKSSPGDT
 LVKQESARRADVGLAEPLVRSHEVQMTFDDAAKTLVSGEASNGPTDVMDSMTTWSNNQELVREAGS
 VLHCPLEQGSSCGPSETAQLALSHPYLRSFLVVLQALLGNEEDMKLFDEQEKAITRFYQLSASGQKL
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 SPGGQKQQLVDAFHKLAKQRSVCTWGKTQPGIRAVILKRAKDLAGRSLRVCKGPRAVFARILLFLSLTDS
 MEDEEAACGGQQLSTVLLVNLGRMEFPQYTIKRTQIFRDREDLIRYAAAAMHLSDISAAMASGNWEDA
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 IYCPDSRGRWDRLLALNLHQHLKRLLEEAIKREGLADPHVRTGHRSLYQRAVRLRESPCRKYKHLFS
 RLPEVAVGDVKHVTITGRLCPQHGMGKSVFVMSGDGANPTTVLCSVEELALGYRQSGFDQGIHGEEST
 FSTLCGLLLWDIIFMDGIPDVFERNAYQASPLDLLTDSFFASREQALEARLQLIHSAPAESLRAWGEAWQ
 AQQGRVASLSWDRFTSLQQAQDLVSLGGPVLSGVCRRLAADFRHCRGGLPDLVWNSQSHHCKLVEVK
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TRTRPLE - GFP Tag - V

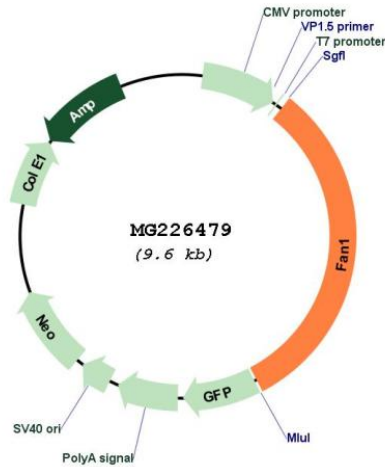
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_177893

ORF Size: 3060 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:	<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_177893.4
RefSeq Size:	3475 bp
RefSeq ORF:	3063 bp
Locus ID:	330554
UniProt ID:	Q69ZT1
Cytogenetics:	7 C
Gene Summary:	Nuclease required for the repair of DNA interstrand cross-links (ICL) recruited at sites of DNA damage by monoubiquitinated FANCD2. Specifically involved in repair of ICL-induced DNA breaks by being required for efficient homologous recombination, probably in the resolution of homologous recombination intermediates (By similarity). Not involved in DNA double-strand breaks resection. Acts as a 5'-3' exonuclease that anchors at a cut end of DNA and cleaves DNA successively at every third nucleotide, allowing to excise an ICL from one strand through flanking incisions (PubMed:24981866). Probably keeps excising with 3'-flap annealing until it reaches and unhooks the ICL. Acts at sites that have a 5'-terminal phosphate anchor at a nick or a 1- or 2-nucleotide flap and is augmented by a 3' flap (By similarity). Also has endonuclease activity toward 5'-flaps (PubMed:24981866).[UniProtKB/Swiss-Prot Function]