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# Product datasheet for RG220837

## ICAD (DFFA) (NM_213566) Human Tagged ORF Clone

### Product data:

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|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | ICAD (DFFA) (NM_213566) Human Tagged ORF Clone |
| **Tag:** | TurboGFP |
| **Symbol:** | DFFA |
| **Synonyms:** | DFF-45; DFF1; ICAD |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-AC-GFP (PS100010) |
| **E. coli Selection:** | Ampicillin (100 ug/mL) |

**ORF Nucleotide Sequence:**

>RG220837 representing NM_213566
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGTGACCGGGGACGCCGGGGTACCAGAATCTGGCGAGATCCGGACTCTAAAGCCGTGTCTGCTGC
GCCGCAACTACAGCCGCGAACAGCACGGCGTGGCCGCCTCCTGCCTCGAAGACCTGAGGAGCAAGGCCTG
TGACATTCTGGCCATTGATAAGTCCCTGACACCAGTCACCCTGGTCCTGGCAGAGGATGGCACCATAGTG
GATGATGACGATTACTTTCTGTGTCTACCTTCCAATACTAAGTTTGTGGCATTGGCTAGTAATGAGAAAT
GGGCATACAACAATTCAGATGGAGGTACAGCTTGGATTTCCCAAGAGTCCTTTGATGTAGATGAAACAGA
CAGCGGGGCAGGGTTGAAGTGGAAGAATGTGGCCAGGCAGCTGAAAGAAGATCTGTCCAGCATCATCCTC
CTATCAGAGGAGGACCTCCAGATGCTTGTTGACGCTCCCTGCTCAGACCTGGCTCAGGAACTACGTCAGA
GTTGTGCCACCGTCCAGCGGCTGCAGCACACACTCCAACAGGTGCTTGACCAAAGAGAGGAAGTGCGTCA
GTCCAAGCAGCTCCTGCAGCTGTACCTCCAGGCTTTGGAGAAAGAGGGCAGCCTCTTGTCAAAGCAGGAA
GAGTCCAAAGCTGCCTTTGGTGAGGAGGTGGATGCAGTAGACACGGGTATCAGCAGAGAGACCTCCTCGG
ACGTTGCGCTGGCGAGCCACATCCTTACTGCACTGAGGGAGAAGCAGGCTCCAGAGCTGAGCTTATCTAG
TCAGGATTTGGAGGTGGGCGGAAACCAGGGTCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:**

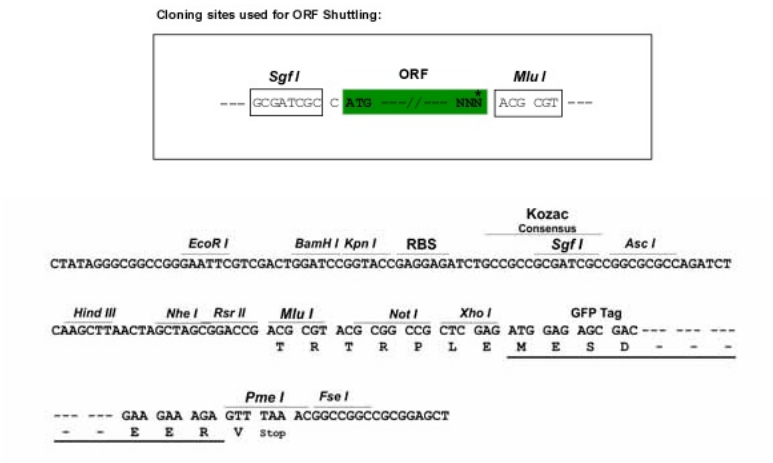
>RG220837 representing NM_213566
Red=Cloning site Green=Tags(s)

MEVTGDAGVPESGEIRTLKPCLLRRNYSREQHGVAASCLEDLRSKACDILAIDKSLTPVTLVLAEDGTIV
DDDDYFLCLPSNTKFVALASNEKWAYNNSDGGTAWISQESFDVDETDSGAGLKWKNVARQLKEDLSSIIL
LSEEDLQMLVDAPCSDLAQELRQSCATVQRLQHTLQQVLDQREEVRQSKQLLQLYLQALEKEGSLLSKQE
ESKAAFGEEVDAVDTGISRETSSDVALASHILTALREKQAPELSLSSQDLEVGGNQGH

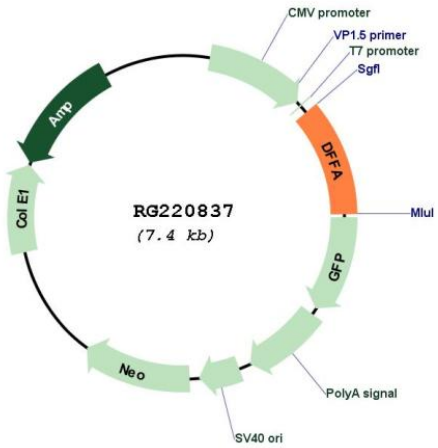
TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**Plasmid Map:**




**ACCN:** NM_213566

**ORF Size:** 804 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_213566.2 |
| **RefSeq Size:** | 3408 bp |
| **RefSeq ORF:** | 807 bp |
| **Locus ID:** | 1676 |
| **UniProt ID:** | O00273 |
| **Cytogenetics:** | 1p36.22 |
| **Protein Pathways:** | Apoptosis |
| **Gene Summary:** | Apoptosis is a cell death process that removes toxic and/or useless cells during mammalian development. The apoptotic process is accompanied by shrinkage and fragmentation of the cells and nuclei and degradation of the chromosomal DNA into nucleosomal units. DNA fragmentation factor (DFF) is a heterodimeric protein of 40-kD (DFFB) and 45-kD (DFFA) subunits. DFFA is the substrate for caspase-3 and triggers DNA fragmentation during apoptosis. DFF becomes activated when DFFA is cleaved by caspase-3. The cleaved fragments of DFFA dissociate from DFFB, the active component of DFF. DFFB has been found to trigger both DNA fragmentation and chromatin condensation during apoptosis. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008] |