

Product datasheet for **RG231785**

AKR1C3 (NM_001253909) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AKR1C3 (NM_001253909) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: AKR1C3
Synonyms: DD3; DDX; HA1753; HAKRB; HAKRe; hluPGFS; HSD17B5; PGFS
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG231785 representing NM_001253909
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCCAAACACCAGTGTGTAAGCTAAATGATGGCCACTTCATGCCTGTATTGGGATTTGGCACCT
ATGCACCTCCAGAGGTTCCGAGAAGTAAAGCTTTGGAGGTCACAAAATTAGCAATAGAAGCTGGGTTCCG
CCATATAGATTCTGCTCATTTTACAATAATGAGGAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCA
GATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCAAAGCTTTGGTCCACTTTTCATCGACCAGAGT
TGGTCCGACCAGCCTTGAAAACACTCACTGAAGAAAGCTCAATTGGACTATGTTGACCTCTATCTTATTCA
TTCTCAAATGTCTCTAAAGGTATGCAGTTTGATGAGCATAAAATGCGCTTCTGCTGTCATTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG231785 representing NM_001253909
Red=Cloning site **Green**=Tags(s)

MDSKHQCVKLNDGHFMPVLGFGTYAPPEVPRSKALEVTKLAIEAGFRHIDSAHLYNNEEQVGLAIRSKIA
DGSVKREDIFYTSKWLSTFHRPELVRPALENSLKKAQLDYVDLYLIHSPMSLVKCSLYEHKIALLLSL

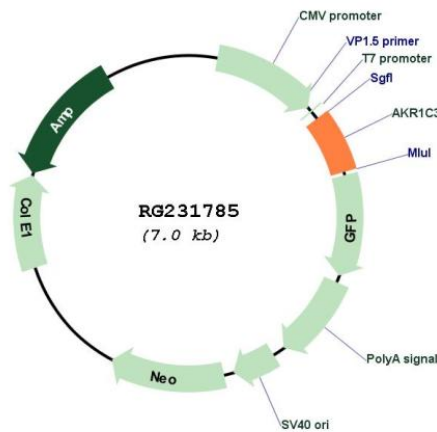
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Plasmid Map:


ACCN: NM_001253909

ORF Size: 414 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:	<u>NM_001253909.2</u>
RefSeq Size:	1064 bp
RefSeq ORF:	417 bp
Locus ID:	8644
Cytogenetics:	10p15.1
Protein Families:	Druggable Genome
Protein Pathways:	Arachidonic acid metabolism, Metabolism of xenobiotics by cytochrome P450
Gene Summary:	This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and the oxidation of 9alpha,11beta-PGF2 to PGD2. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]