OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC117811

AKR7A2 (NM_003689) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AKR7A2 (NM_003689) Human Untagged Clone
Tag:	Tag Free
Symbol:	AKR7A2
Synonyms:	AFAR; AFAR1; AFB1-AR1; AKR7
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_003689, the custom clone sequence may differ by one or more nucleotides

ATGCTGAGTGCCGCGTCTCGCGTAGTCTCCCGCGCCGCCGTCCACTGCGCGCTTCGCTCTCCGCCGCCCG
AGGCCCGCGCGCTCGCCATGTCCCGGCCACCGCCACCGCGGGTCGCCTCGGTGCTGGGCACCATGGAGAT
GGGGCGCCGCATGGACGCGCCCGCCAGCGCCGCGGCCGTGCGCGCCTTTCTGGAGCGCGGCCACACCGAA
CTGGACACGGCCTTCATGTACAGCGACGGCCAGTCCGAGACCATCCTGGGCGGCCTGGGGCTCGGGCTGG
GCGGTGGCGACTGCAGAGTGAAAATTGCCACCAAGGCCAACCCTTGGGATGGAAAATCACTAAAGCCTGA
CAGTGTCCGGTCCCAGCTGGAGACGTCATTGAAGAGGCTGCAGTGTCCCCAAGTGGACCTCTTCTACCTA
CACGCACCTGACCACGGCACCCCGGTGGAAGAGACGCTGCATGCCTGCCAGCGGCTGCACCAGGAGGGCA
AGTTCGTGGAGCTTGGCCTCTCCAACTATGCTAGCTGGGAAGTGGCCGAGATCTGTACCCTCTGCAAGAG
CAATGGCTGGATCCTGCCCACTGTGTACCAGGGCATGTACAACGCCACCACCCGGCAGGTGGAAACGGAG
CTCTTCCCCTGCCTCAGGCACTTTGGACTGAGGTTCTATGCCTACAACCCTCTGGCTGGGGGCCTGCTGA
CTGGCAAGTACAAGTATGAGGACAAGGACGGGAAACAGCCTGTGGGCCGCTTCTTTGGGAATAGCTGGGC
TGAGACCTACAGGAATCGCTTCTGGAAGGAGCACCACTTCGAGGCCATTGCGTTGGTGGAGAAGGCCCTG
CAGGCCGCATATGGCGCCAGCGCCCCCAGTGTGACCTCGGCTGCCCTCCGGTGGATGTACCACCACTCAC
AGCTGCAGGGTGCCCACGGGGACGCGGTCATCCTGGGCATGTCCAGCCTGGAGCAGCTGGAGCAGAACTT
GGCAGCAACAGAGGAAGGGCCCCTGGAGCCGGCTGTCGTGGATGCCTTTAATCAAGCCTGGCATTTGGTT
GCTCACGAATGTCCCAACTACTTCCGCTAG

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003689 unedited
GGTCAAAATTTGTATACGACTCATATAGGGCGGCCGCGAATTCGCACGAGGTCTCCCGTT
GCCGCCGTCATGTCCCGGCAGCTGTCGCGGGCCCGGCCAGCCACGGTGCTGGGCGCCATG
GAGATGGGGCGCCGCATGGACGCGCCCACCAGCGCCGCAGTCACGCGCGCCTTCCTGGAG
CGCGGCCACACCGAGATAGACACGGCCTTCGTGTACAGCGAGGGCCAGTCCGAGACCATC
CTTGGCGGCCTGGGGCTCCGGCTGGGCGGCAGCGACTGCAGAGTGAAAATTGATACCAAG
GCCATTCCACTGTTTGGGAACTCCCTGAAGCCTGACAGTCTCCGGTTCCAGCTGGAGACG
TCACTGAAGCGGCTGCAGTGTCCCCGAGTGGACCTCTTCTACCTGCATATGCCAGACCAC
AGCACCCCGGTGGAAGAGACACTGCGTGCCTGCCACCAGCTGCACCAGGAGGGCAAGTTC
GTGGAGCTTGGCCTCTCCAACTATGCAGCCTGGGAAGTGGCCGAGATCTGTACCCTCTGC
AAGAGCAACGGCTGGATCCTGCCCACTGTGTACCAGGGCATGTACAATGCCATCACCCGG
CAGGTGGAAACGGAGCTCTTCCCCTGCCTCAGGCACTTTGGACTGAGGTTCTATGCCTTC
AACCCTCTGGCTGGGGGCCTGCTGACCGGCAAGTACAAGTATGAGGACAAGGATGGGAAA
CAGCCTGTGGGCCGCTTCTTTGGGAATACCTGNGCAGAGATGTACAGGAATCGCTACTGG
AAGGAGCACCACTTTGAGGGCATTGCCCTGGTGGAGAAAGCCCTGCAGNCCGCGTATGGC
GCCAGCGCCCCCAGCATGACCTCGGCCCCCTNCGGTGGATGTACCACACTCCAGCTGCAG
GGTGCCACGGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_003689 unedited
ACCGCGGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTATAAATGACCCAGTCT
CAGGTATTCTTTTATAGCAACGCAAACAGACTAACACACAGCACCCTGGGAGTTTTATTC
TTCATTTGGTGGTGACTCTTCTATTAGGTTTTTGTCCAAATACTTCCATCCCTAAGAATT
TACTGAGGCAGTTCTAAATTAAAGAAAATGTGAGTAACAAAAGATGTTACAGAAGAGCCT
TGGGCAGCCTGAGAAACGATGGGCCTAGCGGAAGTAGTTGGGACATTCGTGAGCAACCAA
ATGCCAGGCTTGATTAAAGGCGTCCACGACAGCCGGCTCCAGGGGCCCTTCCTCTGCCGC
TGCCAAGTTCTGCTCCAGCTGCTCCAGGCTGGACATGCCCAGGATGACCGCGTCCCCGTG
GGCACCCTGCAGCTGTGAGTGGTGGTACATCCACCGGAGGGTGGCCGAGGTCATGCTGGG
GGCGCTGGCGCCATACGCGGCCTGCANGGCCTTCTCCACCAGGGCAATGCCCTCAAAGTG
GTGCTCCTTCCAGTAGCGATCCCTGTACATCTCTGCCCAGGTATTCCCAAAGAACCGGCC
CCAAGCTGTTTCCCATCCTTGCTCTTATACTTGAACTTGCCGGTCAGCAGGCCCCCAACC
ACAAGGTTGAAGGCATACAACCTCAGCCCCAAATGCCCTGAGCAGGGGAAAAACCTCCGT
TCCACCTGCCGGCTGATGGCCTTGATCATGCCCTGGTAACCACTGGGCAAGATCCACCGT
TGCTTTTGCAAAGGGTCCAATCCCGCGCCTTTCCAACTCCATATTTGGAAAGCCAACTCC
ACAAACTGCCTCCTGGGGAACTTGTGGCAGGCCCCCCTGGTTTTTCACCGGGTGCTTGGC
CCGCTTTTGCCGGTAAAAGCCCCCCTCGGAACTGCACCCCTT

Restriction Sites: NotI-NotI

ACCN: NM_003689

Insert Size: 1320 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_003689.2, NP_003680.2
RefSeq Size:	1377 bp
RefSeq ORF:	1080 bp
Locus ID:	8574
UniProt ID:	O43488
Cytogenetics:	1p36.13
Domains:	aldo_ket_red
Protein Families:	Druggable Genome
Gene Summary:	The protein encoded by this gene belongs to the aldo/keto reductase (AKR) superfamily and AKR7 family, which are involved in the detoxification of aldehydes and ketones. The AKR7 family consists of 3 genes that are present in a cluster on the p arm of chromosome 1. This protein, thought to be localized in the golgi, catalyzes the NADPH-dependent reduction of succinic semialdehyde to the endogenous neuromodulator, gamma-hydroxybutyrate. It may also function as a detoxication enzyme in the reduction of aflatoxin B1 and 2-carboxybenzaldehyde. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]