

Product datasheet for **RC213497**

AIRE (NM_000383) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AIRE (NM_000383) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AIRE
Synonyms:	AIRE1; APECED; APS1; APSI; PGA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213497 representing NM_000383
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGACGGACGCGCGCTACGCCGGTCTCTGAGGCTGCACCGCACGGAGATCGCGGTGGCCGTGGACA
 GCGCCTTCCCAGTCTGCACGCGCTGGCTGACCACGACGTGGTCCCCGAGGACAAGTTTTCAGGAGACGCT
 TCATCTGAAGGAAAAGGAGGGCTGCCCCAGGCCCTCCACGCCCTCCTGTCTGGCTGCTGACCCAGGAC
 TCCACAGCCATCCTGGACTTCTGGAGGGTGTGTTCAAGGACTACAACCTGGAGCGCTATGGCCGGCTGC
 AGCCCATCCTGGACAGCTTCCCCAAGATGTGGACCTCAGCCAGCCCCGGAAGGGGAGGAAGCCCCCGGC
 CGTCCCCAAGGCTTTGGTACCGCCACCCAGACTCCCCACCAAGAGGAAGGCCTCAGAAGAGGCTCGAGCT
 GCCGCGCCAGCAGCCCTGACTCCAAGGGGACCCGACCCAGGCTCTCAACTGAAGGCCAAGCCCCCA
 AGAAGCCGGAGAGCAGCGCAGAGCAGCAGCGCCTTCCACTCGGGAACGGGATTAGACCATGTGAGCTTC
 AGTCCAGAGAGCTGTGGCCATGTCTCCGGGACGTCCCGGGAGCCGAGGGGCCGTGGAGGGGATCCTC
 ATCCAGCAGGTGTTTGTGTCAGGCGGCTCCAAGAAGTGCATCCAGGTTGGCGGGGAGTTCTACACTCCCA
 GCAAGTTCGAAGACTCCGGCAGTGGGAAGAACAAGGCCCGCAGCAGCAGTGGCCCGAAGCCTCTGGTTTCG
 AGCCAAGGGAGCCAGGGCGCTGCCCCCGTGGAGGTGAGGCTAGGCTGGCCAGCAGGGCAGCGTTCCC
 GCCCTCTGGCCCTCCCCAGTGACCCCAAGTCCACCAAGAAGTGAAGCAGAGTGTGCCGTGTGTCGGG
 ACGGCGGGGAGCTCATCTGCTGTGACGGCTGCCCTCGGGCCTTCCACTGGCCTGCCTGTCCCCTCCGCT
 CCGGGAGATCCCAGTGGGACCTGGAGGTGCTCCAGTGCCTGCAGGCAACAGTCCAGGAGGTGCAGCCC
 CGGGCAGAGGAGCCCCGGCCCCAGGAGCCACCCGTGGAGACCCCGCTCCCCCGGGGCTTAGTTCGGCGG
 GAGAGGAGGTAAAGAGTCCACCTGGGGAACCCCTAGCCGGCATGGACACGACTCTGTCTACAAGCACCT
 GCCGGTCCGCCTTCTGCAGCCCCGCTGCCAGGCTGGACTCCTCGGCCCTGCACCCCTACTGTGTGTG
 GGTCTGAGGGTCAAGAACCTGGCTCCTGGTGCAGCTTGGGGGTGTGCGGAGATGGTACGGACGTGC
 TGCGGTGTACTACTGCGCCGCTGCCTTCCACTGGCGCTGCCACTTCCAGCCGGCACCTCCCGGCCGG
 GACGGGCTGCGCTGCAGATCCTGCTCAGGAGACGTGACCCAGCCCTGTGGAGGGGTGCTGGCCCCC
 AGCCCCGCCCGCTGGCCCTGGGCTGCCAAGGATGACTGCCAGTACAGAGCCCGCTCTGCACAGGG
 ATGACCTGGAGTCCCTTCTGAGCGAGCACACTTCGATGGCATCTGCAGTGGGCCATCCAGAGCATGGC
 CCGTCCGGCGGCCCTTCCCCTC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213497 representing NM_000383
 Red=Cloning site Green=Tags(s)

MATDAALRRLRLHRTEIAVAVDSAFPLLHALADHDVVPEDKFQETLHLKEKEGCPQAFHALLSWLLTQD
 STAILDFWRVLFKDYNLERYGRLQPIILDSFPKDVLSQPRKGRKPPAVPKALVPPRLPTKRKASEEARA
 AAPAALTPRGTASPGSQLKAKPPKPESSAEQRLPLNGIQTMSASVQRAVAMSSGDVPGARGAVEGIL
 IQQVFESGSKKCIQVGGEFYTPSKFEDSGSNGKARSSGPKPLVRAKGAQGAAPGGGEARLGQQGSVP
 APLALPSDPQLHQKNEDECAVCRDGGELICCDGCPRAFHLAACLSPPLREIPSGTWRCSSCLQATVQEVQP
 RAEPRPQEPVETPLPPGLRSAGEEVRGPPGEPLAGMDTTLVYKHLAPPSSAAPLPLGLDSSALHPLL CV
 GPEGQQLAPGARCGVCGDGTDLRCHTCAAFFHWRCHFPAAGTSRPGTGLRCRSCSGDVTPAPVEGVLAP
 SPARLAPGPAKDDTASHEPALHRDDLESLLSEHTFDGILQWAIQSMARPAAPFPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8024_c06.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000383

ORF Size: 1635 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.
 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_000383.4](#)

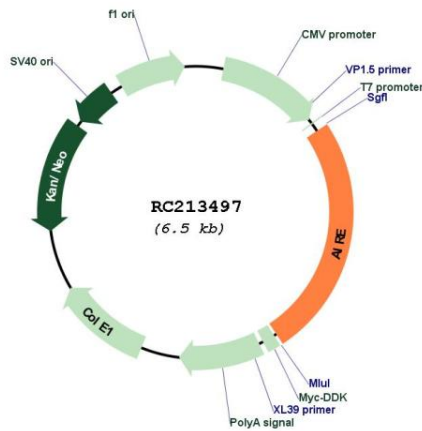
RefSeq Size: 2252 bp

RefSeq ORF: 1638 bp

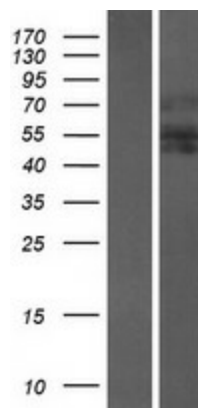
Locus ID: 326

UniProt ID: [O43918](#)
Cytogenetics: 21q22.3
Protein Families: Druggable Genome
Protein Pathways: Primary immunodeficiency, Ubiquitin mediated proteolysis
MW: 57.5 kDa
Gene Summary: This gene encodes a transcriptional regulator that forms nuclear bodies and interacts with the transcriptional coactivator CREB binding protein. The encoded protein plays an important role in immunity by regulating the expression of autoantigens and negative selection of autoreactive T-cells in the thymus. Mutations in this gene cause the rare autosomal-recessive systemic autoimmune disease termed autoimmune polyendocrinopathy with candidiasis and ectodermal dystrophy (APECED). [provided by RefSeq, Jun 2012]

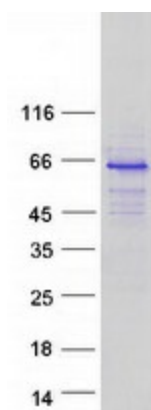
Product images:



Circular map for RC213497



Western blot validation of overexpression lysate (Cat# [LY424752]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213497 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AIRE protein (Cat# [TP313497]). The protein was produced from HEK293T cells transfected with AIRE cDNA clone (Cat# RC213497) using MegaTran 2.0 (Cat# [TT210002]).