

Product datasheet for RC215709

Androgen Receptor (AR) (NM_001011645) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Androgen Receptor (AR) (NM_001011645) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AR
Synonyms:	AIS; AR8; DHTR; HUMARA; HYSPI; KD; NR3C4; SBMA; SMAX1; TFM
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC215709 representing NM_001011645 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATACTCTGGCTTACAGTTGGAGACTGCCAGGGACCATGTTTTGCCATTGACTATTACTTTCCAC
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CACCAGCCCACTGAGGAGACAACCCAGAAGCTGACAGTGTACACATTGAAGGCTATGAATGTCAGCCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence: >RC215709 representing NM_001011645
Red=Cloning site Green=Tags(s)

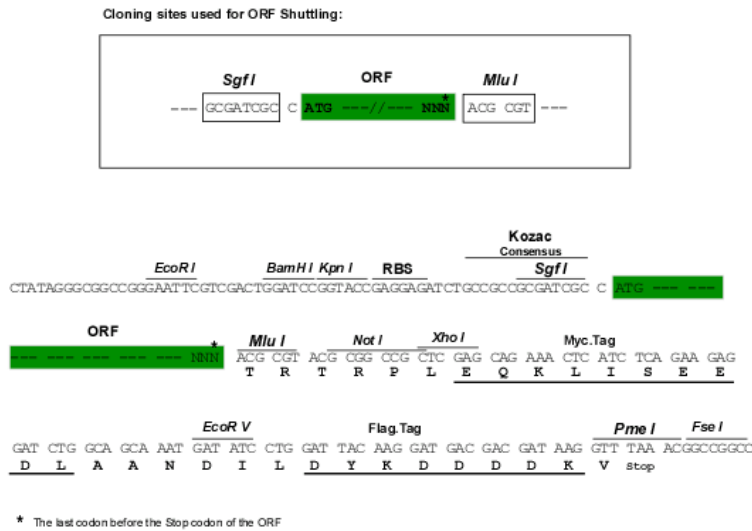
MILWLHSLTARDHVLPIIDYFFPPQKTCLICGDEASGCHYGALTCGSCKVFFKRAAEGKQKYL CASRNDCTIDKFRRNKPC SCLRKCYEAGMTLGARKLKKLGNLKLQE EGEASSTTSPTEETTQKLT VSHIEGYEQPIFLNVLEAIEPGVVCAGHDNNQPD SFAALLSSLNELGERQLVHVVKWAKALPGFRNLHVDDQMAVIQYSWMGLMVFAMGWRSFTNVNSRMLYFAPDLVFNEYRMHKS RMYSQCVRM RHL SQEFGWLQITPQEF LCMKALL LFSIIPVDGLKNQKFDDEL RMYIKELDR IIA CKRKNPTSCSRRFYQLTKLLDSVQPIARELHQFTFDLLIKSHMVSVD FPEMMAE IISVQVPKILSGKVPIYFHTQ

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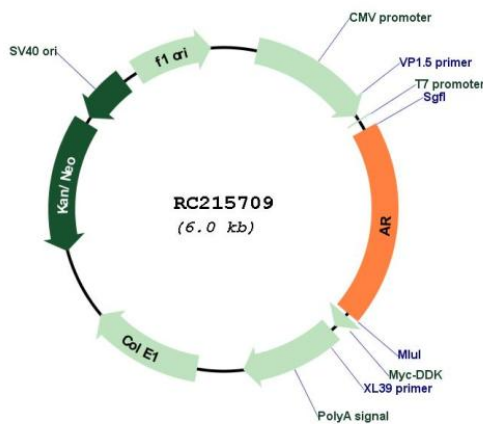
Chromatograms: https://cdn.origene.com/chromatograms/mg2704_g08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



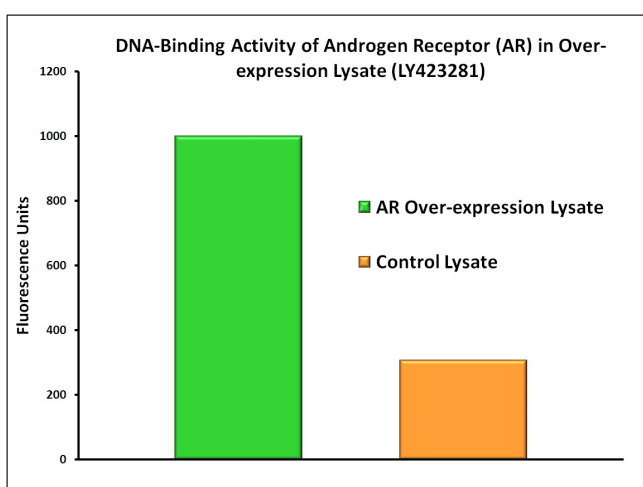
Plasmid Map:



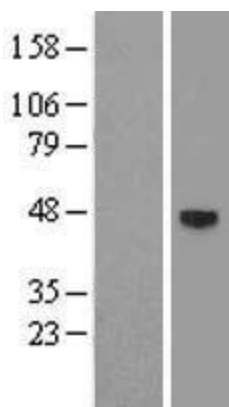
ACCN:	NM_001011645
ORF Size:	1164 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_001011645.3
RefSeq Size:	1765 bp
RefSeq ORF:	1167 bp
Locus ID:	367
UniProt ID:	P10275
Cytogenetics:	Xq12
Protein Families:	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
Protein Pathways:	Oocyte meiosis, Pathways in cancer, Prostate cancer
MW:	44.5 kDa

Gene Summary:

The androgen receptor gene is more than 90 kb long and codes for a protein that has 3 major functional domains: the N-terminal domain, DNA-binding domain, and androgen-binding domain. The protein functions as a steroid-hormone activated transcription factor. Upon binding the hormone ligand, the receptor dissociates from accessory proteins, translocates into the nucleus, dimerizes, and then stimulates transcription of androgen responsive genes. This gene contains 2 polymorphic trinucleotide repeat segments that encode polyglutamine and polyglycine tracts in the N-terminal transactivation domain of its protein. Expansion of the polyglutamine tract from the normal 9-34 repeats to the pathogenic 38-62 repeats causes spinal bulbar muscular atrophy (SBMA, also known as Kennedy's disease). Mutations in this gene are also associated with complete androgen insensitivity (CAIS). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2017]

Product images:


DNA-binding activity of Androgen Receptor (AR) was measured in OriGene over-expression lysate [LY423281] and a control lysate. Three microliters of each lysate was tested with a transcription factor binding assay utilizing AR-specific DNA sequences. The high level of activity observed in the over-expression lysate compared to the control lysate demonstrates that the expressed AR is biologically active in the lysate. Overexpression cell lysates are prepared from HEK293T cells transfected with RC215709 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY423281]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215709 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).