

Product datasheet for **RG211966**

ARNT2 (NM_014862) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARNT2 (NM_014862) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARNT2
Synonyms:	bHLHe1; WEDAS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG211966 representing NM_014862
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCAACCCCGCGCGGTCAACCCTCCGAAATGGCTTCAGACATACCTGGATCTGTGACGTTGCCCG
 TTGCCCCATGGCGGCCACCGGACAGGTGAGGATGGCGGGGCCATGCCTGCCCGTGGAGGAAAGCGGCG
 TTCGGAATGGACTTCGATGATGAAGATGGTGAAGGCCCAAGTAAATTTCAAGAGAGAATCATAGTGAA
 ATCGAAAGGCGCAGACGGAAACAAGATGACTCAGTACATCACGGAGCTCTCCGACATGGTCCCCACATGCA
 GCGCACTGGCTCGGAAGCCAGACAAGCTCACCATCCTCCGCATGGCCGTCTCGCACATGAAGTCCATGAG
 GGGTACAGGGAACAAGTCCACCGATGGCGGTACAAGCCTTCTCTCACAGAGCAGGAACTGAAGCAT
 CTCATCCTGAAGCAGCTGATGGATTTCTGTTTGGTGGCTGCTGAGACAGGGCAGTGATTTATGTGT
 CTGACTCCGTCAACCCTGTTCTGAACCAGCCCCAGTCAAGTGGTTTGGGAGCACACTGTATGAACAGGT
 GCATCCTGATGACGTGGAGAAGTGAAGAGCAACTGTGCACCTCAGAAAACCAATGACAGGCCGGATC
 TTGGACCTGAAGACTGGGACGGTCAAGAAAAGAGGCAGCAGTCAATCAGGATGTGCATGGGCTCGC
 GCGGCTTTTCATCTGCAGGATGAGGTGTGAAATGCTCCTTTGGACCACCTTCTCTAAACAGAATAAC
 CACCATGAGGAAAAGGTTTCAGGAATGGCCTTGGCCCTGTGAAAGAAGGAGAAGCCCAATATGCTGTGGT
 CACTGTACAGGATACATCAAGGCCTGGCCACCAGCAGGAATGACCATACCTGAAGAAGACGCTGATGTGG
 GACAAGGCAGTAAATATTGCCTCGTGGCAATGGGAGACTCCAGGTGACCAGCTCTCCTGTATGCATGGA
 CATGAATGGGATGTGGTGGCCACAGAGTTCTTATCCCGCATAACTCCGATGGAATCATCACATTTGTG
 GATCCAAGATGTATCAGTGTGATTGGCTACCAACCCAGGATCTTCTGGGAAAGGACATTTTGAATTCT
 GCCACCCTGAGGATCAAAGCCATCTGCGTGAGAGCTTCCAGCAGGTGGTTAAGCTGAAAGGCCAAGTCT
 GTCGGTCATGTATCGATTTTCGCACCAAGAACCAGGAGTGGATGTTGATCCGCACCAGCAGTTCACATTC
 CAGAATCCCTATTCTGATGAGATTGAGTACATCATCTGCACCAACACCAACGTCAGCAACTTCAGCAAC
 AGCAGGCAGAATTGGAAGTGCACCAAGAGAGATGGATTGTCATCGTATGACTTATCCAGGTCCCCGTCCC
 CAACCTACCAGCCGGTTCATGAGGCCGGGAAGTCCGTGAAAAGGCGGATGCAATCTTCTCCAGGAA
 AGAGATCCTCGGTTTGTGAAATGTTTGCAGGAATTAGTGCATCGGAGAAGAAGATGATGAGCTCAGCCT
 CTGCAGCAGGAACCCAGCAGATCTACTCCAAGGAAGCCATTTCCCTCTGGACTCCGGGAAGGCCTT
 CAGCTCTCAGTGGTTCATGTGCCTGGAGTGAATGATATTCAGTCTCTTCTCCACGGCCAGAACATG
 TCCAAATCTCCCGCAGCTAAACCAGAGTCAAGTGGCATGGACAGGGAGTCGTCCGCCCTTCCGGGAC
 AGCAAATCCCATCTCAGTCCAGCAAGACTCAGTCACTCCCTTTGGGATTGGAACGAGCCACACCTACCC
 GGCAGACCCCTCTTCTACAGCCCTCTCCAGCCAGCTACCTCCTCGCAAGTGGGAATGCCTACTCC
 AGTCTTGGCAACAGGACTCCAGGGTTTCGTGAAAGTGGACAAAGTAGCGGGCAGTTCAGGGCGGCCCT
 CGGAAGTCTGGTTCAGTGGCAAGCCAGCACCATGGCCAGCAGAGCGGTGAGCAGCACTCCACCCAGCA
 GCCCGTCAAGTGAAGTGTCCAGGACATGCTGCCCATGCCAGGAGATCCAACCCAGGGGACTGGCAAC
 TATAACATCGAAGACTTTGCCGACCTGGCATGTTCCACCGTTTTCTGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211966 representing NM_014862
Red=Cloning site Green=Tags(s)

MATPAAVNPPEMASDIPGSVTLVPVAPMAATGQVRMAGAMPARGGKRRSGMDFDDEDGEGPSKFSRENHSE
 IERRRRNKMTQYITELSDMVPTCSALARKPKDLTILRMAVSHMKSMRGTGNKSTDGAYKPSFLEQELKH
 LILEAADGFLFVAAETGRVIYVSDSVTPVLNQPQSEWFGSTLYEQVHPDDVEKLRQLCTSENSMTGRI
 LDLKTGTVKKEGQQSSMRMCMGSRRSFICRMRCGNAPLDHLPLNRITTTMRKRFRNGLGPVKEGEAQYAVV
 HCTGYIKAWPPAGMTIPEEDADVQGSKYCLVAIGRLQVTSSPVCMDMNGMSVPTFLSRHNSDGIITFV
 DPRCISVIGYQPQDLLGKDILEFCHPEDQSHLRESFQQVVKLKGQVLSVMYRFRTKNREWMLIRTSSFTF
 QNPYSDEIEYIICTNTNVKQLQQQQAELVHQRDGLSSYDLSQVPVNPAPAGVHEAGKSVEKADAIQSFE
 RDRPFAEMFAGISASEKKMMSSASAAGTQQIYSQGSPPSGHSGKAFSSSVVHVPGVNDIQSSSSTGQNM
 SQISRQLNQSQVAWTGSRPPFPQQIPSSQSKTQSSPFGIGTSHTYPADPSSYSPLSSPATSSPSGNAYS
 SLANRTPGFAESGQSSGQFQGRPSEVWSQWQSQHHGQSQSGEQSHHQPGQTEVFQDMLPMPGDPTQGTGN
 YNIEDFADLGMFPPFSE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014862

ORF Size: 2151 bp

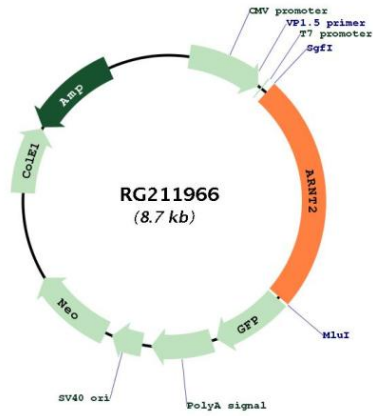
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_014862.4
RefSeq Size:	6576 bp
RefSeq ORF:	2154 bp
Locus ID:	9915
UniProt ID:	Q9HBZ2
Cytogenetics:	15q25.1
Domains:	PAS, HLH, PAC
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Pathways in cancer, Renal cell carcinoma
Gene Summary:	<p>This gene encodes a member of the basic-helix-loop-helix-Per-Arnt-Sim (bHLH-PAS) superfamily of transcription factors. The encoded protein acts as a partner for several sensor proteins of the bHLH-PAS family, forming heterodimers with the sensor proteins that bind regulatory DNA sequences in genes responsive to developmental and environmental stimuli. Under hypoxic conditions, the encoded protein complexes with hypoxia-inducible factor 1alpha in the nucleus and this complex binds to hypoxia-responsive elements in enhancers and promoters of oxygen-responsive genes. A highly similar protein in mouse forms functional complexes with both aryl hydrocarbon receptors and Single-minded proteins, suggesting additional roles for the encoded protein in the metabolism of xenobiotic compounds and the regulation of neurogenesis, respectively. [provided by RefSeq, Dec 2013]</p>

Product images:



Circular map for RG211966