

## Product datasheet for **SC114814**

### ARNT2 (NM\_014862) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ARNT2 (NM_014862) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARNT2
Synonyms:	bHLHe1; WEDAS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC114814 sequence for NM\_014862 edited (data generated by NextGen Sequencing)

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ATGGCAACCCCGGCGGGTCAACCCTCCGAAATGGCTTCAGACATACCTGGATCTGTG
ACGTTGCCCGTTGCCCATGGCGGCCACCGGACAGGTGAGGATGGCGGGGGCCATGCCT
GCCCGTGGAGGAAAGCGCGTCCGGAATGGACTTCGATGATGAAGATGGTGAAGCCCC
AGTAAATTTTANNNGAGAATCATAGTAAATCGAAAGGCGCAGACGGAACAAGATGACT
CAGTACATCACGGAGCTCTCCGACATGGTCCCCACATGCAGCGCACTGGCTCGGAAGCCA
GACAAGCTCACCATCCTCCGCATGGCCGTCTCGACATGAAGTCCATGAGGGGTACAGGG
AACAAAGTCCACCGATGGCGGTACAAGCCTTCCTTCTCACAGAGCAGGAAGTGAAGCAT
CTCATCCTTGAAGCAGCTGATGGATTTCTGTTTGTGGTGGCTGCTGAGACAGGGCGAGTG
ATTTATGTGTCTGACTCCGTACCCCTGTTCTGAACCAGCCCCAGTCAGAGTGGTTTGGG
AGCACACTGTATGAACAGGTGCATCCTGATGACGTGGAGAAGCTGAGAGAGCAACTGTGC
ACCTCAGAAAACCAATGACAGGCCGGATCTTGGACCTGAAGACTGGGACGGTCAAGAAA
GAAGGGCAGCAGTCATCCATGAGGATGTGCATGGGCTCGCGGCGGTCTTTCATCTGCAGG
ATGAGGTGTGAAATGCTCCTTTGGACCACCTTCTCTAAACAGAATAACCACCATGAGG
AAAAGGTTTCAGGAATGGCCTTGGCCCTGTGAAAGAAGGAGAAGCCCAATATGCTGTGGTC
CACTGTACAGGATACATCAAGGCCTGGCCACCAGCAGGAATGACCATACCTGAAGAAGAC
GCTGATGTGGGACAAGGCAGTAAATATTGCCTCGTGGCAATTGGGAGACTCCAGGTGACC
AGCTCTCCTGTATGCATGGACATGAATGGGATGTCGGTGGCCACAGAGTTCTTATCCCGG
CATAACTCCGATGGAATCATCACATTTGTGGATCCAAGATGTATCAGTGTGATTGGCTAC
CAACCCAGGATCTTCTGGGAAAGGACATTTTGGAAATTCGCCACCCTGAGGATCAAAGC
CATCTCGGTGAGAGCTTCCAGCAGGTGGTTAAGCTGAAAGGCCAAGTCTGTGCGTCATG
TATCGATTTTCGACCAAGAACCAGGAGTGGATGTTGATCCGCACCAGCAGCTTCACATTC
CAGAATCCCTATTCTGATGAGATTGAGTACATCATCTGCACCAACCAACGTCAAGCAA
CTTCAGCAACAGCAGGCAGAATTGGAAGTGCACCAGAGAGATGGATTGTCATCGTATGAC
TTATCCAGGTCCCGTCCCAACCTACCAGCCGGTGTTCATGAGGCCGGGAAGTCCGTG
GAAAAGGCGGATGCAATCTTCTCCAGGAAAGAGATCCTCGGTTTGTGAAATGTTTGCA
GGAATTAGTGCATCGGAGAAGAAGATGATGAGCTCAGCCTCTGCAGCAGGAACCCAGCAG
ATCTACTCCCAAGGAAGCCATTTCCCTCTGGACTCCGGGAAGGCCTTCAGCTCTTCA
GTGTTTATGTGCTGGAGTGAATGATATTCAGTCTCTTCTTCCACGGGCCAGAACATG
TCCCAAATCTCCCGGCAGCTAAACCAGAGTCAGGTGGCATGGACAGGGAGTCGTCCGCC
TTTCCGGGACAGCAAATCCCATCTCAGTCCAGCAAGACTCAGTCATCTCCCTTTGGGATT
GGAACGAGCCACACCTACCCGGCAGACCCCTTCTCTACAGCCCCCTCTCCAGCCCAGCT
ACCTCCTCGCAAGTGGGAATGCCTACTCCAGTCTTGCCAACAGGACTCCAGGGTTTCGT
GAAAGTGGACAAAGTAGCGGGCAGTTCCAAGGGCGGCCCTCGGAAGTCTGGTCCGAGTGG
CAAAGCCAGCACCATGGCCAGCAGAGCGGTGAGCAGCACTCCACCAGCAGCCCGGTGAG
ACTGAAGTGTTCAGGACATGCTGCCATGCCAGGAGATCCAACCCAGGGGACTGGCAAC
TATAACATCGAAGACTTTGCCGACCTGGGCATGTTTCCACCGTTTTCTGAGTAG

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Clone variation with respect to NM\_014862.3  
 193 a=>n;194 g=>n;195 a=>n

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_014862 unedited  
 GTAACGTTCCAATTTGTATACGACTCATATAGGCGGCCGCGAATTCGCACGAGGGGAGCG  
 CCGCCCGCCCGCCGCTCTTTGTGTGGCGGGCGGCGCCTGGTCTGACCGGGTCCCC  
 GGGGCTGAGCGCCGGGCTCCGCGCCGCCCTCCCGCGCCCTGCCAAGCGGGCGCCTATC  
 CTCTCCGAGCAAGATGGCAACCCGGCGGGTCAACCTCCGAAATGGCTTACAGCAT  
 ACCTGGATCTGTGACGTTGCCCGTTGCCCATGGCGGCCACCGACAGGTGAGGATGGC  
 GGGGCCATGCCGCGTGGAGGAAAGCGGCGTCCGGAATGGACTTCGATGATGAAGA  
 TGGTGAAGGCCCCAGTAAATTTCAAGAGAATCATAGTGAAATCGAAAGCGCAGACGGA  
 ACAAGATGACTCAGTACATCACGAGCTCTCCGACATGGTCCCCACATGCAGCGCACTGG  
 CTCGGAAGCCAGACAAGCTCACCATCCTCCGCATGGCCGTCTCGCACATGAAGTCCATGA  
 GGGGTACAGGGAACAAGTCCACCGATGGCGCGTACAAGCCTTCTTCTCACAGAGCAGG  
 AACTGAAGCATCTCATCCTTGAAGCAGCTGATGGATTTCTGTTTGGTGGCTGCTGAGA  
 CAGGGCGAGTGATTTATGTGTCTGACTCCGTCACCCCTGTTCTGAACCAGCCCCAGTCAG  
 AGTGGTTTGGGAGCACACTGTATGAACAGGTGCATCCTGATGACGTGGAGAAGCTGAGAG  
 AGCAACTGTGCACCTCAGATAACTCAATGACAGGCCGGATCTTGGACCTGAAGACTGGGA  
 CGGTCAAGATAGAATGGCAGCAGTCATCCATGAAGATGTGCATGGGCTCGCGGCGT

**3' Read Nucleotide Sequence:** >OriGene 3' read for NM\_014862 unedited  
 ATGTACGCGCCGCATCTATAGTCGTTTTTTTTTTTTTTTTTTTTAAAGGAAACTGAGATT  
 GTTAGATGAAGCAAGCCGCTCTGCTCCCGCACAGCCTGTGAAACCTCCATTTGCCACTT  
 TCAAGGTCAGTGCCCCACAGACCCTGGCCTGTTGTTGACCATAACACTAGCTTTGGCCAC  
 AAAAGCCAGGGACACCTACGCTTGGAAATGTGCCTGCACCACTGTGTGGTGCCTCCTTAA  
 GTTGCCCCACACTCCACATGGCCAAAGAAAAGGTGAATGTCCAGGTGGTTATTGGCTTC  
 TTATTATGGGGTGTGGTGGGGAATGACCCCGGTAGGTTAGGAGACAGTGACTTAGGTC  
 AAGTCCATATTTCTGGTTTTATAAAGGACACTCGTATTCTGACTTGGCATTTCTATAGC  
 TGTAAGGGTACTGTCTGTTACTGTTATATGGTTCGCTATAAACCCTCACGGTATTAG  
 GTGAGTGTCCATTGTTATGTTCTTATGGACTCTTAAAGTGGCTCCTCAGTGGTCAGA  
 CTATTTCTTTATTTGAATATGTTGTCTTTTTGTTTTGCCCCTAAGTCTTCATGTTATT  
 CTGTATTCATCGCATCCCGTAATCACATCTAAATATCTTCTCCTTCTNCTCACTTCTC  
 TCTCTCTTATCACCTCGATTTTCGCCCTCACCTCTTCTTCTTCTGCTATTTCTCCA  
 TATGCTCTCTCCTCATCTCTATGTGTCTCCCTCTTTGCCCTTCATTTGCTTCCC  
 CCTTCTTCTTCTCCTCATCTTCTTTATTCTTCTTCTGCACCCTCGTCCNCACTAT  
 CTTACTCTTCTCTTCTAATTCTTTTTTCACTCACCTCCTCTACTTCTCTCTCTC  
 TTGTCCTGATCTGTGCATCCTATTAGTGATTCCTCATCTTATCATTTCTACCTTCGATT  
 CTAATCTACCTACACCCCTCCTTCTCGAC

**Restriction Sites:** NotI-NotI

**ACCN:** NM\_014862

**Insert Size:** 6930 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_014862.3</a> , <a href="#">NP_055677.3</a>
<b>RefSeq Size:</b>	6576 bp
<b>RefSeq ORF:</b>	2154 bp
<b>Locus ID:</b>	9915
<b>UniProt ID:</b>	<a href="#">Q9HBZ2</a>
<b>Cytogenetics:</b>	15q25.1
<b>Domains:</b>	PAS, HLH, PAC
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Pathways in cancer, Renal cell carcinoma
<b>Gene Summary:</b>	<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>