

## Product datasheet for **MC224515**

### **Ncoa2 (NM\_008678) Mouse Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ncoa2 (NM\_008678) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Ncoa2  
**Synonyms:** bHLHe75; D1Ertd433e; GRIP-1; Grip1; KAT13C; NCoA-2; SRC-2; TIF2  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224515 representing NM\_008678  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAGTGGGATGGGAGAAAAACCTCTGACCCGTCAGGGCAGAGACCAGAAAACGCAAGGAATGTCCCG  
ACCAGCTCGGACCCAGCCCCAAAAGGAGCACTGAGAAACGGAACCGCAGCAGGAGAATAAGTACATAGA  
GGAGCTGGCCGAGCTGATCTTCGCAAATTTAATGATATTGACAACCTCAACTTCAAACCTGACAAATGT  
GCCATCTAAAAGAACTGTGAAGCAGATCCGCCAGATCAAAGAGCAAGAGAAAGCAGCAGCTGCCAACA  
TAGATGAAGTGCAGAAGTCAAGTGTGTCGTCCACGGGGCAGGGTGTATCGACAAGGATGCACTGGGGCC  
CATGATGCTTGAGGCCCTCGATGGGTTCTTCTCGTTGTGAACCTGGAAGGCAGTGTGGTGTTCGTGTCA  
GAGAATGTGACACAGTATCTACGGTATAACCAAGAAGAGCTGTGAACAAGAGTGTCTACAGCATCCTGC  
ATGTCGGGGACCACACTGAATTTGTCAAGAACCTGCTGCCAAAGTCCATGGTGAATGGAGGATCCTGGTC  
TGGAGAACCTCCCAGGCGGAGCAGCCATACCTCAACTGTGCATGCTGGTGAAGCCTTTGCCAGATTCA  
GAAGAGGAAGGCCATGATAGCCAGGAAGCCATCAGAAATACGAGGCGATGCAGTCTTCGCTGTGTCTC  
AGCCAAAGTCCATCAAAGAGGAAGGCGAAGATTTGCAGTCTGCTTGTATTGTGTGGCACGAAGAGTCCC  
CATGAAGGAAAGACCAACTCTTCCCTCATCAGAAAGCTTTACCACCCGCCAGGACCTCAAAGGCAAGATC  
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TTCAGAAGTTCACACACAGCATGAAGGGGAGTCTCTATCATATGCCAAGAGGCATCACCATGAAGTTCT  
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ACCAAGAGCAAATCATCCGTTCTCAGACTACTAATGAGCCTCAGCTTGAATATCTTTACACATGCTTC  
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AATTAGCTCTAGCAGCCCTGCCACCAGGCCCTGTGCAGTGGGAACCCAGGTGAGACATGACCCTCGGT  
AGCAATATAAATTTCCCATGAATGGCCAAAGGAACAAATGGGCATGCCTATGGGCAGGTTTGGTGGTT  
CTGGGGGCATGAACCATGTGTCAGGCATGCAAGCAACCACTCCTCAGGGTAGTAACATATGCACTCAAAT  
GAACAGTCCCTCGAAAGCAGCCCCGGCATGAACCCGGGGCAAGCCAGCTCCGTGCTCTCCCAAGGCAG  
CGCATGAGCCCCGGCGTGGCTGGCAGTCTCGCATCCCACCCAGTCAGTTTTCCCTGCAGGAAGCTTGC



ATTCCCCTGTGGGAGTTTGCAGCAGCACAGGAAATAGCCATAGTTATACCAACAGTTCCTCAATGCACT  
 GCAAGCCCTCAGCGAGGGCCATGGGGTCTCACTCGGGTCTCGCTGGCTTACCCGGACCTAAAAATGGGC  
 AATTTGCAAACTCCCCAGTTAATATGAATCCTCCCCACTCAGCAAGATGGGAAGCTTGGACTCCAAAG  
 ACTGTTTTGGACTTTATGGGGAGCCCTCAGAAGGTACAACGGACAAGCAGAGGGCCAGCTGCCATCCTGA  
 AGAACAAAAGGGCCCAATGATTCCAGCATGCCCCAGGCGGCCAGCGGGACAGGGCTGAGGGACACAGC  
 CGGCTGCATGACAGCAAAGGGCAGACCAAACCTCTGCAGCTGTGACCACCAAGTCCGACCAGATGGAGC  
 TTTCACCCCTTGGCCAGCTCCTTGTGCGACACAACAAGGACTCAACAGGGAGCTTGCCTGGCCGTGGGT  
 CACGCATGGCACCTCGCTCAAGGAGAAGCATAAGATTTTGCACAGACTTTACAGGACAGCAGTTCCCT  
 GTGGACTTGGCCAAAGCTGACAGCAGAAGCCACAGGCAAAGAGCTGAGCCAGGAGTCCAGCAGCACAGCTC  
 CTGGGTCGGAAGTGACTGTCAAACAGGAGCCAGCGAGCCCAAGAAGAAAGAGAATGCACTACTGCGCTA  
 TTTGCTCGACAAAGATGATACTAAAGATATTGGTTTACCGGAAATAACCCCAAACCTCGAGCGACTGGAC  
 AGTAAGACAGATCCTGCCAGTAACACAAAGTTAATTGCTATGAAAAGTGTGAAGGAGGAGGTGAGCTTTG  
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 GTTACCACAGCTTTTCCAGACACAAGGCCAGGAGCTCCTACTGGGTGAGTTGACAAGCAAGCCATCATC  
 AATGACCTCATGCAACTCACAGCTGACAGCAGTCCCGTCCACCTGCCGGAGCCAGAAGGCAGCACTGC  
 GCATGTACAGAGCACTTTAATAACCCACGACCAGGGCAACTGGGCAGGTTATTGCCAAACCAGAACTT  
 ACCACTTGACATCACTTTGCAAAGCCAACTGGTGTGGACCTTTCCACCAATCAGAAAACAGTAGCCCC  
 TACTCAGTGATACCTCAGCCAGGAATGATGGGTAAACCAAGGGATGCTAGGAAGCCAAAGAAAATTAGGGA  
 ACAATAGCACAGGAATGATTGGCAGCAGCACTTCCCGCCAGCATGCCTTCTGGGGAATGGGCACCACA  
 GAGTCCAGCTGTGAGAGTCACTTGTGCTGCTACCACTGGTGCATGAACCGACCAGTCCAAGGAGGCATG  
 ATTCGGAACCCAAACAGCCAGCATCCCCATGCGAGCCAACAGCCAGCCTGGCCAAAGACAGATGCTTCAGT  
 CTCAGGTCATGAACATAGGCCCTTCTGAGTTAGAGATGAACATGGGAGGACCTCAGTATAATCAACAGCA  
 GGCCCCCAGAACCAAACCTGCCCGTGGCCTGAGAGCATCCTGCCTATAGACCAGGCATCGTTTGCAGC  
 CAGAACAGGCAGCCCTTGGCAGCTCCCTGATGACCTGCTGTGCCACATCCTGCAGCAGAGTCGCCAA  
 GCGATGAGGGCGCTCTTCTTGACCAGCTGTATCTGGCCTTGCGGAACCTCGATGGCCTTGGAGGATTGA  
 TAGAGCTCTGGGATACCAGAACTGGTCAGCCAGAGCCAAGCTGTGGATGCAGAGCAGTTCTCAAGTCAG  
 GAGTCCAGCATAATGCTGGAGCAGAAGCCCCCGTTTTCCACAGCAGTACGCATCTCAGGCACAAATGG  
 CCCAGGGTGGCTATAATCCCATGCAAGATCCAAACTTTACACCATGGGACAGCGGCCAAATTACACCAC  
 ACTCCGTATGCAGCCACGGCCAGGCCTCAGGCCACAGGCATTGTGCAGAACAGCCAAACCAACTGAGA  
 CTTTCAGCTTCAGCACCGCTCCAAGCACAGCAGAATCGCCAGCCGCTTATGAATCAGATCAGCAGTGT  
 CCAATGTGAACCTGACTCTGAGGCCTGGAGTGCCCACTCAGGCTCCTATTAATGCACAGATGCTGGCCA  
 GAGGCAGAGGAAATCCTCAACCAACATCTTCGGCAGAGACAGATGCAGCAGCAGGTGCAGCAGCGGACT  
 TTGATGATGAGAGGACAGGGCTTGAATGTGACCCCAAGCATGGTGGCTCCCGCTGGCCTACCAGCAGCCA  
 TGAGCAATCCCCGGATCCCCAGGCCAATGCCAGCAGTTCCTATTTCTCCGAACTACGGAAATAAGTCA  
 ACAACCTGATCCTGGCTTACTGGGGCTACAACCCCCAGAGTCTCTAATGTCTCCCCGGATGGCAGAT  
 ACTCAGAGTCCCATGATGCAGCAGTCTCAAGCCAACCCAGCCTACCAGCCACCTCAGACATGAATGGAT  
 GGGCACAGGGGAGCATGGGTGGAACAGCATGTTCTCACAGCAGTCCCCACCACACTTTGGGCAACAAGC  
 AAACACCAGCATGTATAGTAACAACATGAACATCAGTGTGTCGATGGCAACCAACACGGGTGGCTTGAGC  
 AGCATGAACCAGATGACAGGCCAGATGAGCATGACCTCAGTGACCTCCGTGCCTACGTGAGGACTGCCCT  
 CCATGGGTCCCGAGCAGTCAATGACCCTGCTCTGAGGGGAGGCAACCTTTCCCAAACCAACTGCCTGG  
 AATGGACATGATCAAGCAGGAGGAGATGCATCTCGGAAATACTGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
 ACCN: NM\_008678  
 Insert Size: 4389 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_008678.3](#), [NP\\_032704.2](#)

**RefSeq Size:** 8286 bp

**RefSeq ORF:** 4389 bp

**Locus ID:** 17978

**UniProt ID:** [Q61026](#)

**Cytogenetics:** 1 4.12 cM

**Gene Summary:** Transcriptional coactivator for steroid receptors and nuclear receptors. Coactivator of the steroid binding domain (AF-2) but not of the modulating N-terminal domain (AF-1). Required with NCOA1 to control energy balance between white and brown adipose tissues. Critical regulator of glucose metabolism regulation, acts as RORA coactivator to specifically modulate G6PC expression. Involved in the positive regulation of the transcriptional activity of the glucocorticoid receptor NR3C1 by sumoylation enhancer RWDD3. Positively regulates the circadian clock by acting as a transcriptional coactivator for the CLOCK-ARNTL/BMAL1 heterodimer (PubMed:24529706).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (a) represents the longer transcript and encodes the longer isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.