

## Product datasheet for **MG227560**

### Nuak2 (NM\_001195025) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nuak2 (NM_001195025) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nuak2
Synonyms:	1200013B22Rik; mKIAA0537; Omphk2; Snark
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227560 representing NM\_001195025  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGAGTCGGTGGCCTTACTCCAGCGCCGAGCCAGGCTCCCTCGGCCTCCGCCCTGGCCTCGGAGAGCG  
 CCCGGCCGCTGGCGGACGGGCTCATCAAGTCGCCTAAACCTCTGATGAAGAAGCAGGCGGTGAAGCGGCA  
 CCATCACAAACACAACCTGCGGCACCGCTACGAGTTCCTGGAGACGCTGGGCAAGGGCACCTACGGGAAG  
 GTGAAGAAGGCACGAGAGAGCTCGGGCGTCTGGTGGCCATCAAGTCCATCAGGAAAGACAAAATCAAAG  
 ATGAGCAGGATCTGCTGCACATACGGAGGGAGATTGAGATCATGTCTTCACTCAACCACCCACATCAT  
 TGCCATCCATGAAGTGGCAGATCAGCCTTAGTGACTGTGTTGAGAATAGCAGCAAGATTGTGATTGTC  
 ATGGAGTATGCCAGCCGAGGCGATCTGTATGATTACATCAGTGAAGCGCCACGGTGAAGTGAAGCGGACG  
 CCAGGCATTTCTCCGACAGATCGTGTCTGCCCTGCACTACTGCCACCAGAACGGGATCGTTCACCGAGA  
 TCTCAAGCTGGAACATCCTTCTAGATGCCAATGGAACATCAAGATTGCTGACTTTGGCCTCTCCAAC  
 CTGTACCACAAAGCAAGTTCCTCCAGACGTTCTGTGGGAGCCCTCTCTACGCCTCGCCTGAGATAGTCA  
 ACGGAAGCCCTATGTGGGCCAGAGGTGGACAGCTGGTCTCTGGGCCTTCTCTGTACATCCTGGTGA  
 TGGACCATGCCCTTTGACGGGCAGGATCATAAAACACTGGTGAAGCAAATCAGTAAACGGGGCTTACCGT  
 GAGCCGCCAAGCCGTCCGATGCCTGTGGCCTGATCCGGTGGCTGTTAATGGTGAACCCACCCGTCGGG  
 CCACACTGGAGGATGTAGCCAGTATTGGTGGGTCAACTGGGGTTACACCACCGGAGTCCGGGAACAGGA  
 AGCCCTGCGTGAAGGTGGCACCTAGTGGTGAAGTGGCCGGGCTCCATGGCGGACTGGTTACGTCGC  
 TCCTCGCGCCCTCTCTGGAGAATGGAGCAAGGTGTGCAGCTTCTTCAAGCAGCAGTCCCGGGAGGTG  
 GAAGCACTGTACCTGGGCTGGAGCGGCAACATTTCTTAAAGAAGTCCCGAAAGGAGAATGACATGGCTCA  
 AAATCTGCAAGGTGACCCGGCTGAGGATACCTCTTCTCGCCCTGGCAAGAGCAGCCTTAAAGCTTCGGAAA  
 GGCATTCTCAAGAAAAGTCTCTACCTCGTCAGGGGAGGTACAGGAGGACCCTCAGGAAGTACAGCCGG  
 TGCTGATACTCCAGGCAGCCTGTCCCTGCTGTATCCCTGCTCCCAAGGAAAGGCATCCTTAAAGAAGT  
 TCGACAGCGTGAATCTGGTTACTACTCTCTCCAGAGCCAGCGAGTCTGGGAACTCTTAGACGCCAGT  
 GATGTGTTTGTGAGTGGGACCCCGTGGAGCAGAAGTCTCCACAGGCTTACAGGCTCCTCTCCACCGCA  
 AGGGCATTCTCAAACCAATGGCAAGTCTCCCGCACAGCCTTAGAAGGCACTACCCTAGCACCTTTGG  
 CTCCCTGGACCAACTGGCCTCTCCATCTGCAGCCCGCCAGCCGCCCTCAGGGGTGTGAGTGA  
 GACAGCATCTGTCTCCGAGTCTTTGACCAATTGGACTTGCCGAACGTCTTCCGAAACCCACTGA  
 GGGGCTGTGTGTCTGTGACAACCTGAGGGGGTGTGAGCAGCCTCCCTCAGAAGGTCTGAAGCGATGGT  
 GCAGGAATCCTTGGGGATAGCTGCTTTTCTCTGACAGACTGCCAAGAGGTGACTGCAGCCTACAGACAA  
 GCCCTAGGAATCTGCTCAAAGCTCAGC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG227560 representing NM\_001195025  
 Red=Cloning site Green=Tags(s)

MESVALLQRPSQAPSASALASESARPLADGLIKSPKPLMKQAVKRHHKHNLHRHYEFLETGKGTYGK  
 VKKARESSGRLVAIKSIRKDKIKDEQDLLHIRREIEIMSSLNHPHIIAIEHVGRSRLVTVFENSSKIVIV  
 MEYASRGDLYDYISERPRLSERDARHFRQIVSALHYCHQNGIVHRDLKLENILLDANGNIKIADFGLSN  
 LYHKGKFLQTFCGSPLYASPEIVNGKPYVGPVDSWSLGVLLYLHVGTMFPDGDHKTLLVKQISNGAYR  
 EPPKPSDACGLIRWLLMVNPTRRATLEDVASHWWWVNWGYTTGVGEQEALREGGHPSGDFGRASMADWLR  
 SSRPLLENGAKVCSFFKQHVPGGSTVPLERQHSLLKSRKENDMAQNLQGDPAEDTSSRPGKSSLLKLPK  
 GILKKKSSSTSSGEVQEDPQELRPVPDTPGQPVAVSLLPRKGILKSRQRESGYSSPEPSESGELLDAS  
 DVFVSGDPVEQKSPQASGLLLHRKILKLNKFSRTALEGTTPTSTFGSLDQLASSHPAARPSRPSGAVSE  
 DSILSSESFQDLDLPERLPETPLRGCVSDNLRGLQPPSEGLKRWVQESLGDSCFSLTDQCEVTAAYRQ  
 ALGICSKLS

**TRTRPLE** – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_001195025

ORF Size: 1917 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.

RefSeq: [NM\\_001195025.1](#), [NP\\_001181954.1](#)

RefSeq Size: 3132 bp

RefSeq ORF: 1920 bp

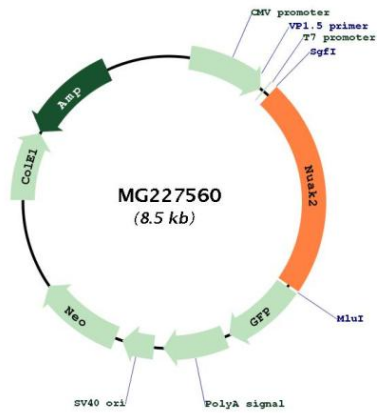
Locus ID: 74137

UniProt ID: [Q8BZN4](#)

**Cytogenetics:** 1 E4

**Gene Summary:** Stress-activated kinase involved in tolerance to glucose starvation. Induces cell-cell detachment by increasing F-actin conversion to G-actin. Expression is induced by CD95 or TNF-alpha, via NF-kappa-B. Protects cells from CD95-mediated apoptosis and is required for the increased motility and invasiveness of CD95-activated tumor cells. Able to phosphorylate 'Ser-464' of LATS1 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG227560