

## Product datasheet for **MR227560**

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

#### **Product data:**

|                    |   |
|--------------------|---|
| Product Type:      | Expression Plasmids                         |
| Product Name:      | Nuak2 (NM_001195025) Mouse Tagged ORF Clone |
| Tag:               | Myc-DDK                                     |
| Symbol:            | Nuak2                                       |
| Synonyms:          | 1200013B22Rik; mKIAA0537; Omphk2; Snark     |
| Vector:            | pCMV6-Entry (PS100001)                      |
| E. coli Selection: | Kanamycin (25 ug/mL)                        |
| Cell Selection:    | Neomycin                                    |



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ORF Nucleotide  
Sequence:

>MR227560 representing NM\_001195025  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTCGGTGGCCTTACTCCAGCGCCGAGCCAGGCTCCCTCGGCCTCCGCCCTGGCCTCGGAGAGCG  
 CCCGGCCGCTGGCGGACGGGCTCATCAAGTCGCCCTAAACCTCTGATGAAGAAGCAGGCGGTGAAGCGGCA  
 CCATCACAAACACAACCTGCGGCACCGCTACGAGTTCCTGGAGACGCTGGGCAAGGGCACCTACGGGAAG  
 GTGAAGAAGGCACGAGAGAGCTCGGGCGTCTGGTGGCCATCAAGTCCATCAGGAAAGACAAAATCAAAG  
 ATGAGCAGGATCTGCTGCACATACGGAGGGAGATTGAGATCATGTCTTCACTCAACCACCCCCACATCAT  
 TGCCATCCATGAAGTGGCAGATCACGCTTAGTGACTGTGTTGAGAATAGCAGCAAGATTGTGATTGTC  
 ATGGAGTATGCCAGCCGAGGCGATCTGTATGATTACATCAGTGAGCGGCCACGGCTGAGTGAGCGGGACG  
 CCAGGCATTTCTCCGACAGATCGTGTCTGCCCTGCACTACTGCCACCAGAACGGGATCGTTACCAGAGA  
 TCTCAAGCTGGAACATCCTTCTAGATGCCAATGGAACATCAAGATTGCTGACTTTGGCCTCTCCAAC  
 CTGTACCACAAAGGCAAGTTCCTCCAGACGTTCTGTGGGAGCCCTCTCTACGCCTCGCCTGAGATAGTCA  
 ACGGGAAGCCCTATGTGGGCCAGAGGTGGACAGCTGGTCTCTGGGCCTTCTCTGTACATCCTGGTGCA  
 TGGCACCATGCCCTTTGACGGGCAGGATCATAAAACACTGGTGAAGCAAATCAGTAACGGGGCTTACCGT  
 GAGCCGCCAAGCCGTCCGATGCCTGTGGCCTGATCCGGTGGCTGTTAATGGTGAACCCACCCGTCGGG  
 CCACACTGGAGGATGTAGCCAGTCATTGGTGGGTCAACTGGGGTTACACCACCGGAGTCGGGGAACAGGA  
 AGCCCTGCGTGAGGGTGGCACCCCTAGTGGTGACTTTGGCCGGCCCTCCATGGCGGACTGGTTACGTCGC  
 TCCTCGCGCCCTCCTGGAGAATGGAGCCAAGGTGTGCAGCTTCTTCAAGCAGCACGTGCCGGGAGGTG  
 GAAGCACTGTACCTGGGCTGGAGCGCAACATTTCTTAAGAAGTCCCGAAAGGAGAATGACATGGCTCA  
 AAATCTGCAAGGTGACCCGGCTGAGGATACCTTCTCTCGCCCTGGCAAGAGCAGCCTTAAGCTTCCGAAA  
 GGCATTCTCAAGAAAAGTCTCTACCTCGTCAGGGGAGGTACAGGAGGACCCTCAGGAACCTCAGACCGG  
 TGCTGATACTCCAGGGCAGCCTGTCCCTGCTGTATCCCTGCTCCCAAGGAAAGGCATCCTTAAGAAGTC  
 TCGACAGCGTGAATCTGGTTACTACTCCTCTCCAGAGCCAGCGAGTCTGGGAACTCTTAGACGCCAGT  
 GATGTGTTTGTGAGTGGGACCCCGTGGAGCAGAAGTCTCCACAGGCTTCAGGGCTCCTCCTCACCCGCA  
 AGGGCATTCTCAAACAATGGCAAGTTCTCCCGCACAGCCTTAGAAGGCACTACCCTAGCACCTTTGG  
 CTCCTGGACCAACTGGCCTCCTCCATCTGCAGCCCGCCAGCCGCCCTCAGGGCTGTGAGTGAG  
 GACAGCATCCTGTCTCCGAGTCTTTGACCAATTGGACTTGCCGAACGTCTTCCGAAACCCCACTGA  
 GGGGCTGTGTCTGTGGACAACCTGAGGGGGCTTGGAGCAGCCTCCCTCAGAAGGTCTGAAGCGATGGTG  
 GCAGGAATCCTTGGGGATAGCTGCTTTTCTCTGACAGACTGCCAAGAGGTGACTGCAGCCTACAGACAA  
 GCCCTAGGAATCTGCTCAAAGCTCAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227560 representing NM\_001195025  
 Red=Cloning site Green=Tags(s)

MESVALLQRPSQAPSASALASESARPLADGLIKSPKPLMKQAVKRHHHKNLHRHYEFLETGKGTYGK  
 VKKARESSGRLVAIKSIRKDKIKDEQDLLHIRREIEIMSSLNHPHIIAIEVGRSRLVTVFENSSKIVIV  
 MEYASRGDLYDYISERPRLSERDARHFFRQIVSALHYCHQNGIVHRDLKLENILLDANGNIKIADFGLSN  
 LYHKGKFLQTFCGSPLYASPEIVNGKPYVGPEVDSWSLGVLLYLILVHGTMFPDGDHKTLLVKQISNGAYR  
 EPPKPSDACGLIRWLLMVNPTRRATLEDVASHWWVNWGYTTGVGEQALREGGHPSGDFGRASMADWLR  
 SSRPLLENGAKVCSFFKQHVPGGGSTVPLERQHSLKSRKENDMAQNLQGDPAEDTSSRPKSSSLKLPK  
 GILKKKSSSTSSGEVQEDPQELRPVDPDTPGQPVPAVSLLPKRGILKKSQRQESGYSSPEPSESGELLDAS  
 DVFVSGDPVEQKSPQASGLLLHRKILKNGKFSRTALEGTTPTFGSLDQLASSHPAARPSRPSGAVSE  
 DSILSSESFQDLDLPERLPETPLRGCVSDNLRGLQPPSEGLKRWWQESLGDSCFSLTDCQEVTAAYRQ  
 ALGICSKLS

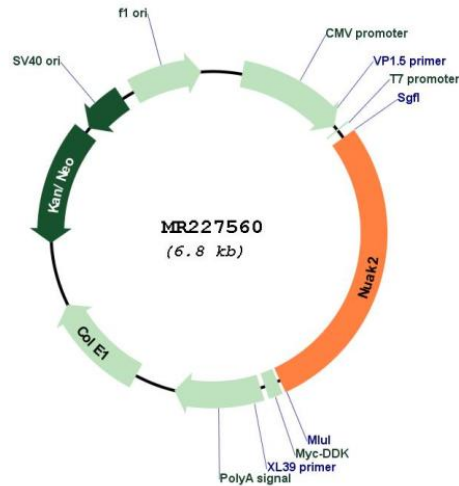
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



**Plasmid Map:**


**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

MW: 71.1 kDa

**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]