

Product datasheet for **MG217367**

Wnk2 (NM_029361) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Wnk2 (NM_029361) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Wnk2
Synonyms:	1810073P09Rik; AW122246; ESTM15; mKIAA1760; X83337
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG217367 representing NM_029361 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGGCGATGGCGGCCGCCGAGACGCCCGCGCGCTGATGGAAGCCGGGCGGGCACGGGGTCGG
CGGGCATGGCGGAGCCGCGGGCGAGGGCGCGCGCTCGGGCCCCAGCGCTTCTGCGGCGCAGCGTGGT
GGAGTCGGACAGGAGGAGCCCGGGCTGGAGGCGGCCGAGACGCCGAGCGCGCAGCCCCACAGCCT
CTGCAGCGCAGGGTGCTTCTACTCTGCAAGACGCGCGGCTCATCGCGGAGCGCGCCGGGCGCCCGG
CCGCGCCCGCGCCCGCGCCGCTGCGCCTCCCGGCTCCCGAGTGTCCCTCGGACCTGGCCCGGA
GCGAGCGGGCACGAGGAGCCAGCCAGATCCCACCACCGCCTCAGCCGAGCCGCGCAGGTCCCGGAC
GGCGGCCCGAGGAGGAAGAGGCGCCGCCCCAACACAGGAGGACGCTGGAACCACCGAGGCAAAGCCGG
AGCCCCGGGCGCGCACGAAGGATGAACCTGAAGAGGAGGAAGACGATGAGGACGACCTCAAGGCCGTGGC
CACCTCTTTGGACGGCCGCTTCTCAAGTTCGACATCGAGCTGGGCGGGGCTCCTTCAAGACGGTCTAC
AAGGGGCTGGACACGGAGACCTGGGTGGAGGTAGCATGGTGTGAACTGCAGGACCGGAAGCTCACCAAGC
TTGAACGGCAGAGATTCAAAGAGGAGGCGGAGATGCTGAAAGGTCTACAGCACCCCAACATTGTGCGCTT
CTATGACTTCTGGGAGTCCAGTGCCAAGGGCAAGCGATGTATCGTGCTGGTGACAGAGCTGATGACCTCG
GGTACACTGAAGACGTACCTGAAGCGGTTCAAGGTGATGAAGCCGAAGGTACTGAGGAGCTGGTGCCGCG
AGATCCTGAAGGCGCTGCTGTTCTGCATACAAGGACACCCCATCATCCACCGTGACCTCAAGTGTGA
CAACATCTTCATCACTGGGCCACCGGCTCTGTGAAGATTGGTGACTTGGGTCTGGCCACCCTTAAAGA
GCGTCTTTTGCCAAAAGTGTGATAGGTACCCCGAGTTCATGGCACCTGAAATGTACGAGGAACATTACG
ACGAGTCGGTTGATGTCTACGCTTCGGGATGTGCATGCTGAAAATGGCTACCTCAGAGTACCCCTATTC
GGAGTGCCAGAACCGCCAGATCTATCGCAAGGTCACCTGTGGCATCAAACCGCCAGCTTCGAGAAG
GTGCATGATCCGGAGATTAAGGAGATCATCGGGGAGTGCATCTGTAAGAACAAAGAGGAGAGGTATGAGA
TTAAGGACCTGCTGAGCCATGCCTTCTCGCGGAAGACACGGGTGTCGGGTGAACTTGCCGAGGAGGA
CCATGGCAGGAAGTCTACCATAGCCCTGCGGCTTTGGGTGGAAGACCCCAAGAAGCTGAAGGGCAAGCCC



[View online >](#)

AAAGACAATGGAGCCATAGAGTTTACCTTTGACTTGGAGAAGGAGACTCCCGACGAGGTGGCCAGGAAA
 TGATCGATTCTGGATTTTCCATGAGAGTGATGTGAAGATTGTGGCCAAGTCCATCCGTGACCGGGTGGC
 ACTGATTACAGTGGCGGCTGAGAGGATCTGGCCTGCACTGCAGTCTCAGGAGCCAAAGGACTCTGGCAGC
 CCTGACAAGGCCAGGGGTCTGCCAGCACCCCTGCAGGTCCAGGTGACCTACCACGCACAGAGTGGGCAGC
 CTGGGCAGCCAGAACCTGAGGAGCCTGAGGCCGACCAGCATCTCTGCCCCCTACCTTGCCAGCTAGCGT
 TACCTCCTTAGCCTCGGACAGCACCTTTGACAGTGGCCAGGGCTCTACCGTGTACTCGGACTCCCAGAGC
 AGCCAGCAGAGCATGGTCTCAGCTCGCTTGTGGACACGGCCCCAACCCAGCCTCGTGGTGTGCAGCC
 CCCCTGTGAGTGAGGGGCTGGCCTGACCCACAGCCTGCCTACGCTAGGGGCTTCCAGCAGCCGGCCAC
 TGTGCCTGGCCTGTCTGTGGGCCCTGTGCCACCCCTGCCCGCCCTCCACTCCTCCAGCAGCATTTTCCA
 GAATCTTCCATGAGCTTACCCCTGTGCTGCCACCACCAGCACCCCTGTGCCACGGGCCAAAGCCAGC
 CAGCACCCCCAGTCCAGCAGCCTTTCATGAGCCAAACCACCTACCCTGCCACAGGTCTGGCCCCACA
 GCCCATGGGCACTGTCCAGCCAGTACCCTCTATTTGCCCTCCATACCTGGCTCCAACCTCCCAGGTCTG
 GCCCTGCTCAGTGAAGCCTCTCCAGATGCCACAGCCACCTCTGCAACCTTTGCTCAAGTCCCTCCGC
 AGATGCCTCAGATGCCTGTGGTCCCCCATCACCCCTTAACAGGACTCGATGGCTCCCTCAGACCT
 CACTGACCTGCCGCGCAAACGTGGCCCCGTGCCACCCTCAGTATTTCTCACCTGTGTGATCTTG
 CCAAGCCTCACAACACCCCTGCCACATCACCGGCCCTGCCTATGCAGGCTGTAAAGTTGCCCTATCCCC
 CTGGAACACCCCTGGCTGTGCCCTGTGAGACCATCGTGCCAAATGCACCAGCTGTATCCCCCTGTTGGC
 CGTGGCCCCGAGGGTGTGGTGCAGTGTCTATCCATCCAGCGGTGGCCAGATCCCAGCCAGCCTGTG
 TACCCAGCAGCCTTCCACAGATGGTACCTGGAGACATCCCACCTCACCCACCCACAGGTGCAGAGCT
 TACGGGCCACCCCTCCACAGTGGCCTCACCTGTGCCTCCTCAGCCTGTCCAGCCAGTGTCAATCATCT
 ACCTGAGCAGGCTGTCCAACCTGCTGCCACAGGACCCAGGTCTGTGGGCCACCCCTCCTTCATACACC
 GCGGACGTTGCTGCTCCAGTCTCTGCTGTGCTCCCTGCCGCTGCTGTCTTTCCCTCCTCTGCCAGATA
 CTCTGCTGCTACTGTCCCTGACCTCTGCCAAAGTCCCAGTCTCTGGCCCCACAGGTTGTCAGGCTGC
 CTCTCAGAGTGCCCGCACAGACCTTCACTCCTCCTGCCAAACAAACCACCCCTGCCACTGGGCT
 GCAGTTGCTGGCCCTGCCCTGCAGTCCAGTGTGGTGAAGTGGCTCAAGAGGAGCAGGTCTACAAG
 ACAAAACCCCTGGCCCCCACAGAGCTCCGAGAGCTTTGGAGTTCTGATGTACCTCTGGAAGAGATCT
 GAGTGACAGCTGTGAAGGCACCTTTGGAGGGGCGAGGCTGGAGGGAAGGACCGCCCGAAACACCACCGT
 AGGTCCACTCGTGACGCTCGCGGAGGAGAGGGCCAGCCGCCCCGGCTCACTATCCTAAATGTGTGA
 ACACGGGGGACAAGATGGTGGAGTGTGAGTGGAAACGCATAACCATAAGATGGTACCTTCAAGTTTGA
 CCTCGATGGGACGCTCCGGATGAGATTGCCACGTACATGGTAGAGCATGACTTTATCCTGCCCGCTGAG
 CGAGAGACCTTATCGAGCAGATGAAGGATGTCATGGACAAGGCAGAAGCATGCTCAGTGAGGACACAG
 ATGCTGACCATGGCTCTGATACAGGGACAGCCCTCCACACCTGGGTACCTGTGGTCTGGCCACGGGGGA
 GGAGAACAGACAGTCCCAAGCCAATGCCCTGTCTACCAGCAGAATGTCTTACACACGGGAAAGAGGTGG
 TTTATCATCTGTCCAGTGGCTGAACACCCAGCAACAGACACTTCTGAATCATCACCCCACTTCTCTAA
 GCTCCTTGACCCAGAAGCCAGCCAAGACCCAGCGCCCTATCCAGACCAGCTGTCTTGACGGACAAACC
 TAGTTTCCAGCTGTGACGAGCTCCTGAGCCAGGAGGCTCCAGCAACCCCTCCTGGTGGAGCATCAGCC
 CCCTTGGCCCCGTCTTCCCTCCTGTGACTACTGTAATCCCGGCAGCACCAGCCACCAGCACCCTGCCAG
 AGTCCAGCAGCAGGACTGCCATGCAGGCAGGAGGTCCAGGACTCATCAAGGACCAGCCAGTGTCCATGA
 GACCCCTCAGCCACTGGCCGAGACAGCTCTGCCAGTGTACTGCCAGCCCTTAGTACTGGCCAAAGGA
 CCTTGCACCCAGCTCTGGAAGCCTCTCGCTGCTCCACAGGTCTGGGGGAGCCCATCTCAACCAGGAGG
 TCAGCACTCAAGGAGAGCCCTGCCTGCTTCAAGTGCAGAACCTAGCCCTCCCACTGGGGCCACACAATC
 TGTACCGGCTCAGCCACCACCCCACTGCCATCACAGTAGGGGCTATCAGTCTGGCAGCTCCCCAGCTC
 CCCAGTCCCCCTGGGACCTACTGCTCCCCACCACCCCTCAGCCTTGAATCTGATGGGGAAGGGC
 CGCCCCCTAGGGTGGCTTCTGTGGACAACACCATCAAGAGTCTGGATGAGAACTGCGGACTCTGCTCTA
 CCAGGAGCAGTGGCCACCTCCTCAGCCTCAGCTGGGACCCCATGGAGGCAAGCGATAGAGACTTACC
 CTGGAGCCCTGCGAGGAGACCTTCCCTCAGCCTTGAAGTGAACACCCCAAGCCTCACCCAGCAGACCC
 AGCCCTCATTGAAAAGTCTGAAACGGCCCTGCAGGATGGGCCCTGGCCAGAGGGAACAGGGTGCATC
 TTCTCAAATGACAGCAGAGTCATCTTCCAGCAATACACTGGGCTGTGACAGTGACGAGGCAAGGTGGCC
 TCGGACTCCTCCACAGCACCCAGTGTCCCCAGGATGCCTCTGGTTCTTCCGTCCCTACACACATGGATC
 CCAAAGATCAGAACAGTAGTGTCCAGAGAAGCCTTGGCAGACCCATGCAAAGTGGCCAGGGTCCCTT
 CACAGTGGGCAGCCAGCCAGCTGCGTGGCGCCCGGACTCCGGTCTCCTCATAAGCGGCCAGGGCAG
 CAGGACAACAGTTCTCCAGCCAAAACCTGTAGGGCGCTTTTCCGTGGTGCAGCACACAGGACGAGTGGACTC

TGGCGTCACCTCACAGCCTGCGGTACTCTGCCACCCGATGTCTACCTGGATGAGATCCCCTCTAGCCC
TGAGGTGAAGCTGGCAGTGCGGCGGTACAGACAGCCTCCTCCATCGAGGTTGGCGTTGAGGAACCTGCC
TCTAGTGACTCTGGGATGAACGCCAAGAAGGAGGTCCCAGGTGCAGAAGCAGTCCTCCCTGCCGGTA
CTGGTGGTGTGGCAAGTACTTTGTGAAGAAGGCCACTGCCTTCTGCACAGGTCTTCAAGGGCTGGCTC
GCTGGGACCTGAGACACCCAGTAGGGCAGGTGTGAAGTCCCTACCATCAGCATCACCTCCTTCCACTCC
CAGTCATCCTACATCAGCAGTGACAATGACTCAGAGTTTGAGGATGCAGACATAAAGAAGGAACTGCGCA
GTCTGCGAGAAAAGCACCTGAAGGAAATCTCGGAGCTACAGAGCCAGCAGAAGCAGGAGATCGAAGCCCT
GTACCGACGCTTGGGCAAGCCGCTCCCTCCCAATGTGGGTTCTTCCACACTGCACCCCTATGGGCCGC
AGGAGGAAAACCAGCAAGAGCAAATTGAAGGCTGGCAAGCTGCTGAACCCCTTGGTGCAACAGCTCAAGG
TCGTGGCCTCCAGCACAGGGTCAGCCCTGAAGCGTCTCTGCCTAGGCAAAGAACACAGCAGTAGGTCTTC
CACCAGCAGCCTGGCCCCAGGCCCTGAGCCAGGTCCCCAGCCCACCTGCACGTCCAGGCGCAGGTGAAC
AACAGCAACAACAAGAAAGGCACCTTACGGACGACCTGCACAAGTTGGTGGACGAGTGGACAACGAAGA
CCGTGGGGCAGCGCAAGTGAAGCCACGCTCAACCAGCTGAAGCAGACGCAGAAGCTGCACGACATGGA
GGCCTCTGGAGACGCTCGGGCTACATCTGTGCCTCGAGCAGCAGTGGGGCATCGTGTCTGGCCCCGGCC
CCTGGCCCTCTGTCCACCACAGCCACTCTGGAGCCACTCCAGCCCTGCCTGTGCCATACCAGATCCTG
AGAGTAAAAGCCCGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG217367 representing NM_029361
 Red=Cloning site Green=Tags(s)

```

MDGDGRRDAPGALMEAGRGTGSAGMAEPRARAARLGPQRFLRRSVVESDQEEPPGLEAAETPSAQPQP
LQRRVLLLCKTRRLIAERARGRPAAPAPAAPAAPPGSPVSDPGERAGTQEPSDPTTASAAAAQVPD
GGPRQEEAPAPTQEDAGTTEAKPEPGRARKDEPEEEEDDEDLKAVATSLDGRFLKFDIELGRGSFKTVY
KGLDTEWVEVAVWCELQDRKLTCLERQRFKEEAEMLKGLQHPNIVRFYDFWESSAKGKRCIVLVTLMTS
GTLKTYLKRFKVMKPKVLRSWCRQILKGLLFLHTRTPPIIHRDLKCDNIFITGPTGSVKIGDLGLATLKR
ASFAKSVIGTPEFMAPEMYEEHYDESVDVYAFGMCMELEMATSEYPYSECQNAAQIYRKVTCGKIPASFEK
VHDPEIKEIIGECICKNKEERYEIKDLLSHAFFAEDTGVVVELAEEDHGRKSTIALRLWVEDPKLKGKPK
KDNGAIEFTFDLEKETPDEVAQEMIDSGFFHESDVKIVAKSIRDVALIQWRRERIWALQSQEPKDSGS
PDKARGLPAPLQVQVYHAQSGQPGQPEPEPEADQHLLPPTLPASVTSLASDSTFDGSGGTVSVDSSQS
SQQSMVLSLVDTAPTPASCVCSPVSEGPGLTHSLPTLGAQQPATVPGLSVGPVPPPAPRPLLQQHFP
ESSMSFTPVLPSPSTPVPTGPSQPAPPVQQLPMAQPPTLPQVLAPQPMGTVPVPSHLPYLAAPTQV
APAQLKPLQMPQPLQPLAQVPPQMPQMPVVPPIITPLTGLDGLPQTLTDLPAANVAVPPPQYFSPAAIL
PSLTTPLPTSPALPMQAVKLPHPGTPLAVPCQTIIVNAPAAIPLLAVAPQGVAAALSIIHPAVAQIPAQPV
YPAAFPQMPVPGDIPSPHHTVQSLRATPPQLASPVPPQVQPSVIHLPEQAAPTAAAGTQVLLGHPPSYT
ADVAAPVSAVSLPPAVLSPPLPDTLLPTVPDLLPKVPSSLAPTVAASQSAPAQTSLLLLPTNPPLTGP
AVAGPCPAVQLMVEVAQEEQVSQDKPPGPPQSSSEFSGGSDVTSGRDLSDSCEGTGGGRLEGRRTARKHHR
RSTRARSRQERASRPLTILNVCNTGDKMVECQLETHNHKMTVTFKFDLDGDAPDEIATYMEVHDFILPAE
RETFIEQMKDVMKAEDMLSEDTADHGSDTGTSPPHLGTCLATGEENRQSQANAPVYQQNVLHTGKRW
FIIICPVAEHPATDTSESSPPLPLSSLQPEASQDPAPYPDQLSLTDKPSFPAAQQLSQAGSSNPPGGASA
PLAPSSPPVTTVIPAAPATSTVPESAAGTAMQAGGPGTHQGPASVHETLQPLAETRAQCTAQLSTGQG
PCTPALEASRCSTGLGEPITSTREVSTQGEPLPASVPEPSPPTGATQSVPGQPPPLPITVGAISLAAPQL
PSPPLGPTAPPPPSALESDGEGPPRVGFVDNTIKSLDEKLRTLLYQEHVPTSSASAGTPMEASDRDFT
LEPLRGDLPSALSDKTPSLTQQTQPSLEKSETAPAGWALAQREQGASSPMTAESSSSNTLGCDSAGQVA
SDSSTAPSVQDASGSSVPTHMDPKDQNSSVPREALAAMPQSGPSTVGSQAQLRGARDSGSPHKRPGQ
QDNSSPAKTVGRFSVVSTQDEWTLASPHSLRYSAPPDVYLDEIPSSPEVKLAVRRVQTASSIEVGVVEPA
SSDSGDERPRRRSQQVQKQSSLPGTGGVASDFVKKATAFLHRSSRAGSLGPETPSRAGVKVPTISITSFHS
QSSYISSDNDSEFEDADIKKELRSLREKHLKEISELQSQKQIEALYRRLGKPLPPNVGFHTAPPMPGR
RRKTSKSKLKAGKLLNPLVQQLKVVASSTGSALKRRLCLGKEHSSRSSTSSLAPGPEPQPPTLHVQAQVN
NSNNKGTFTDDLHKLVDWTTKTVGAAQVKPTLNQLKQTKLHDMEASGDARATSVPRAAVGASCLAPA
PGLSTTATPGATPALPVPVPESEKPD
  
```

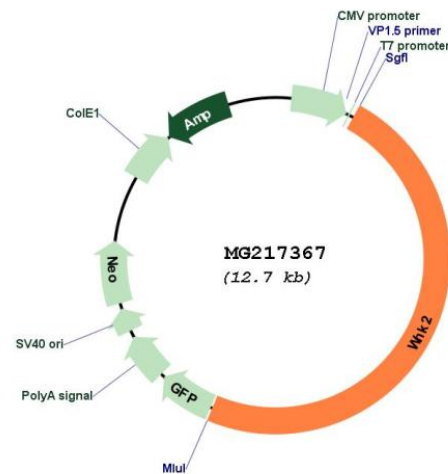
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_029361

ORF Size: 6177 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.
RefSeq:	<u>NM_029361.4</u> , <u>NP_083637.2</u>
RefSeq Size:	6618 bp
RefSeq ORF:	6180 bp
Locus ID:	75607
UniProt ID:	<u>Q3UH66</u>
Cytogenetics:	13 25.07 cM
Gene Summary:	Serine/threonine kinase which plays an important role in the regulation of electrolyte homeostasis, cell signaling, survival, and proliferation. Acts as an activator and inhibitor of sodium-coupled chloride cotransporters and potassium-coupled chloride cotransporters respectively. Activates SLC12A2, SCNN1A, SCNN1B, SCNN1D and SGK1 and inhibits SLC12A5. Negatively regulates the EGF-induced activation of the ERK/MAPK-pathway and the downstream cell cycle progression. Affects MAPK3/MAPK1 activity by modulating the activity of MAP2K1 and this modulation depends on phosphorylation of MAP2K1 by PAK1. WNK2 acts by interfering with the activity of PAK1 by controlling the balance of the activity of upstream regulators of PAK1 activity, RHOA and RAC1, which display reciprocal activity. [UniProtKB/Swiss-Prot Function]