

Product datasheet for **MC229705**

Wnk2 (NM_001290313) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Wnk2 (NM_001290313) Mouse Untagged Clone
Tag: Tag Free
Symbol: Wnk2
Synonyms: 1810073P09Rik; AW122246; ESTM15; mKIAA1760; X83337
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC229705 representing NM_001290313
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGACGGCGATGGCGGCCGCCGAGACGCCCCCGGCGCGCTGATGGAAGCCGGGCGGGCACGGGGTCCG
CGGGCATGGCGGAGCCGCGGGCGAGGGCGCGCGCTCGGGCCCCAGCGTTCCTGCGGCGCAGCGTGGT
GGAGTCGGACCAGGAGGAGCCCGGGCTGGAGGCGGCCGAGACGCCGAGCGCGCAGCCCCACAGCCT
CTGCAGCGCAGGGTGCTTCTACTCTGCAAGACGCGCCGGCTCATCGCGGAGCGCGCCGGGGCCGCCCC
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GCGAGCGGGCACGAGGAGCCAGCCAGATCCCACCACCGCCTCAGCCGAGCCGCGCAGGTCCCCGAC
GGCGGCCCGAGGCAGGAAGAGGCCCGGCCAACACAGGAGGACGCTGGAACCACCGAGGCAAAGCCGG
AGCCCCGGCGCGCACGCAAGGATGAACCTGAAGAGGAGGAAGACGATGAGGACGACCTCAAGGCCGTGGC
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AAGGGCTGGACACGGAGACCTGGGTGGAGTAGCATGGTGTGAAGTGCAGGACCGGAAGCTCACCAAGC
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GGTACACTGAAGACGTACCTGAAGCGTTCAAGGTGATGAAGCCGAAGTACTGAGGAGCTGGTGCCGGC
AGATCCTGAAGGGCTGTGTTCTGCATACAAGGACACCCCATCATCCACCGTGACCTCAAGTGTGA
CAACATCTTCACTGGGCCACCGGCTCTGTGAAGATTGGTGACTGGGTCTGGCCACCTTAAAGA
GCGTCTTTTGC AAAAGTGTGATAGGTACCCCGAGTTCATGGCACCTGAAATGTACGAGGAACATTACG
ACGAGTCGGTTGATGTCTACGCCTTCGGGATGTGCATGCTGGAATGGCTACCTCAGAGTACCCCTATTC
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AAAGACAATGGAGCCATAGAGTTTACCTTTGACTTGGAGAAGGAGACTCCCGACGAGGTGGCCAGGAAA



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TGATCGATTCTGGATTTTCCATGAGAGTGATGTGAAGATTGTGGCCAAGTCCATCCGTGACCGGGTGGC
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 AGTCAGCAGCAGGGACTGCCATGCAGGCAGGAGGTCCAGGGACTCATCAAGGACCAGCCAGTGTCCATGA
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 CAGGACAACAGTTCTCCAGCCAAAAGTGTAGGGCGCTTTTCCGTGGTCTCAGCACACAGGACGAGTGGACT
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TGAGGTGAAGCTGGCAGTGCGGCGGGTACAGACAGCCTCCTCCATCGAGGTTGGCGTTGAGGAACCTGCC
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CTGGTGGTGTGGCAAGTACTTTGTGAAGAAGGCCACTGCCTTCTGCACAGGTCTTCAAGGGCTGGCTC
GCTGGGACCTGAGACACCCAGTAGGGCAGGTGTGAAGTCCCTACCATCAGCATCACCTCCTTCCACTCC
CAGTCATCCTACATCAGCAGTGACAATGACTCAGAGTTTGGAGTGCAGACATAAAGAAGGAACTGGCA
GTCTGCGAGAAAAGCACCTGAAGGAAATCTCGGAGCTACAGAGCCAGCAGAAGCAGGAGATCGAAGCCCT
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GTCCATCTGGTCAAGCGTCTGCTAGGCAAGAACACAGCAGTAGGCTTCCACCAGCAGC
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ACAAGAAAGGCACCTTCACGGACGACTGCACAAGTTGGTGGACGAGTGGACAACGAAGACCGTGGGGGC
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GACGCTCGGGCTACATCTGTGCCTCGAGCAGCAGTGGGGGCATCGTGTCTGGCCCCGGCCCTGGCCCT
TGTCCACCACAGCCACTCCTGGAGCCACTCCAGCCCTGCCTGTGCCCATACCAGATCCTGAGAGTAAAA
GCCCGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001290313
- Insert Size:** 6450 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001290313.1](#), [NP_001277242.1](#)
- RefSeq Size:** 7202 bp
- RefSeq ORF:** 6450 bp

Locus ID: 75607

UniProt ID: [Q3UH66](#)

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]
Transcript Variant: This variant (2) contains alternate 3' exon structure, and it thus differs in the 3' coding region and 3' UTR, compared to variant 1. The encoded isoform (b) has a distinct C-terminus and is shorter than isoform a. This variant is partially supported by the mRNA BC060187.1; the 5' exon structure is inferred based on other transcript alignments at this gene. CCDS Note: This CCDS representation is partially supported by the mRNA BC060187.1. The 5' exon structure is inferred based on other transcript alignments at this gene.