

Product datasheet for MC225153

Wnk2 (NM_029361) Mouse Untagged Clone

Product data:

| | |
|----------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Wnk2 (NM_029361) 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: | >MC225153 representing NM_029361 Red=Cloning site Blue=ORF Orange=Stop codon |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGGCGATGGCGGCCGCCGAGACGCCCCGGCGCGCTGATGGAAGCCGGGCGGGCACGGGGTCCG
CGGGCATGGCGGAGCCGCGGGCGAGGGCGCGCGCTCGGGCCCCAGCGTTCCTGCGGCGCAGCGTGGT
GGAGTCGGACCAGGAGGAGCCCGGGCTGGAGGCGGCCGAGACGCCGAGCGCGCAGCCCCACAGCCT
CTGCAGCGCAGGGTGCTTCTACTCTGCAAGACGCGCCGGCTCATCGCGGAGCGCGCCGGGGCCGCCCC
CCGCGCCCGCGCCCGCCGCGCCCGCTGCGCCTCCCGGCTCCCGAGTGTCCCCTCGGACCTGGCCCGGA
GCGAGCGGGCACGAGGAGCCAGCCAGATCCCACCACCGCCTCAGCCGAGCCGCGCAGGTCCCCGAC
GGCGGCCCGAGGCAGGAAGAGGCCCGGCCAACACAGGAGGACGCTGGAACCACCGAGGCAAAGCCGG
AGCCCCGGCGCGCACGAAGGATGAACCTGAAGAGGAGGAAGACGATGAGGACGACCTCAAGGCCGTGGC
CACCTCTTTGGACGGCCGCTTCTCAAGTTCGACATCGAGCTGGGCCGGGCTCCTTCAAGACGGTCTAC
AAGGGCTGGACACGGAGACCTGGGTGGAGTAGCATGGTGTGAAGTGCAGGACCGGAAGCTCACCAAGC
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CAACATCTTCACTGGGCCACCGGCTCTGTGAAGATTGGTGACTGGGTCTGGCCACCTTAAAGA
GCGTCTTTTGC AAAAGTGTGATAGGTACCCCGAGTTCATGGCACCTGAAATGTACGAGGAACATTACG
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GGAGTCCAGAACGCCCGCCAGATCTATCGCAAGGTACCTGTGGCATCAAACCGGCCAGCTTCGAGAAG
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CCATGGCAGGAAGTCTACCATAGCCCTGCGGCTTTGGGTGGAAGACCCCAAGAAGCTGAAGGGCAAGCCC
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TGATCGATTCTGGATTTTCCATGAGAGTGATGTGAAGATTGTGGCCAAGTCCATCCGTGACCGGGTGGC
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 AGTCAGCAGCAGGGACTGCCATGCAGGCAGGAGGTCCAGGGACTCATCAAGGACCAGCCAGTGTCCATGA
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 TGTACCGGTGAGCCACCACCCCACTGCCATCACAGTAGGGGTATCAGTCTGGCAGCTCCCCAGCTC
 CCCAGTCCCCCTGGGACCTACTGCTCCCCACCACCCCTCAGCCTTGAATCTGATGGGGAAGGGC
 CGCCCCCTAGGGTGGGCTTCTGTGGACAACACCATCAAGAGTCTGGATGAGAAACTGCGGACTCTGCTCTA
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 CTGGAGCCCTGCGAGGAGACCTTCCCTCAGCCTTGAAGTACAAGACCCCAAGCCTACCCAGCAGACCC
 AGCCCTCATTGAAAAGTCTGAAACGGCCCTGCAGGATGGGCCCTGGCCAGAGGGAACAGGGTGCATC
 TTCTCAAATGACAGCAGAGTCTTCCAGCAATACACTGGGCTGTGACAGTGACGAGGCAGGTGGCC
 TCGGACTCCTCCACAGCACCCAGTGTCCCCAGGATGCCTCTGGTTCTTCCGTCCCTACACACATGGATC
 CCAAAGATCAGAACAGTAGTGTCCAGAGAAGCCTTGGCAGCACCCATGCAAAGTGGCCAGGGTCTT
 CACAGTGGGCAGCCAGCCAGCTGCGTGGCGCCCGGACTCCGGGTCTCCTCATAAGCGGCCAGGGCAG
 CAGGACAACAGTTCTCCAGCCAAAAGTGTAGGGCGCTTTTCCGTGGTCTGACACACAGGACGAGTGGACTC
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TGAGGTGAAGCTGGCAGTGCGGCGGGTACAGACAGCCTCCTCCATCGAGTTGGCGTTGAGGAACCTGCC
TCTAGTGAAGCTCTGGGGATGAACGCCAAGAAGGAGGTCCCAGGTGCAGAAGCAGTCTCCCTGCCGGTA
CTGGTGGTGTGGCAAGTGAAGTCTTTGTGAAGAAGGCCACTGCCTTCTGCACAGGTCTTCAAGGGCTGGCTC
GCTGGGACCTGAGACACCCAGTAGGGCAGGTGTGAAGTCCCTACCATCAGCATCACCTCCTTCCACTCC
CAGTCATCCTACATCAGCAGTGACAATGACTCAGAGTTTGAGGATGCAGACATAAAGAAGGAACTGCGCA
GTCTGCGAGAAAAGCACCTGAAGGAAATCTCGGAGCTACAGAGCCAGCAGAAGCAGGAGATCGAAGCCCT
GTACCGACGCTTGGCAAGCCGCTCCCTCCCAATGTGGGTTCTTCCACTGCACCCCTATGGGCCGC
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TCGTGGCCTCCAGCACAGGGTACAGCCCTGAAGCGTCTCTGCCTAGGCAAAGAACACAGCAGTAGGTCTTC
CACCAGCAGCCTGGCCCCAGGCCCTGAGCCAGGTCCCAGCCCACCCTGCACGTCCAGGCGCAGGTGAAC
AACAGCAACAACAAGAAAGGCACCTTACAGGACAGCTGCACAAGTTGGTGGACGAGTGGACAACGAAGA
CCGTGGGGCAGCGCAAGTGAAGCCACGCTCAACCAGCTGAAGCAGACGCAGAAGCTGCACGACATGGA
GGCCTCTGGAGACGCTCGGGCTACATCTGTGCCTCGAGCAGCAGTGGGGCATCGTGTCTGGCCCCGGCC
CCTGGCCCTCTGTCCACCACAGCCACTCCTGGAGCCACTCCAGCCCTGCCTGTGCCATACCAGATCCTG
AGAGTGAAAAGCCCGACTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_029361
- Insert Size:** 6180 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).
- 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_029361.4](#), [NP_083637.2](#)
- RefSeq Size:** 6932 bp
- RefSeq ORF:** 6180 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 (3) lacks two alternate in-frame exons and contains alternate 3' exon structure, and it thus differs in the 3' coding region and 3' UTR, compared to variant 1. The encoded isoform (c) has a distinct C-terminus and is shorter than isoform a. This variant is mostly supported by the mRNA AK147550.1, but with correction of a non-consensus splice site.