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Product datasheet for MR221512

Wnk1 (NM_001185020) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Wnk1 (NM_001185020) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Wnk1
Synonyms:	6430573H23Rik; EG406236; Hsn2; mKIAA0344; Prkwnk1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR221512 representing NM_001185020 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCTGACGGTGCCGCCGAGAAGCAAAGCGGCACTCCGGGCTTCCTTACGCCTCCGGCGCCCGTCCCCA AGAATGGCTCAAGCTCCGATTCTTCCGTGGGCGAGAAACTGGGGGCTACGGTCGCCGACTCGGGAGTTGG CAGGACGGAGGAATATCGGCGCCGCCGGCACACTATGGACAAGGACAGTCGTGGGGCGGCCGCCACCACC ACCCCCACGGAGCACCGATTCTTCCGCCGAAGCGTCATCTGCGACTCCAATGCCACCGCGTTGGAGCTGC CGGGCCTCCCTCTCTCTATCCCGCAACCTAGTGTACCTGCAGTGGTGCCCCAGAGTGCTCCACCCGAACC TCACAGAGAGGAAACTTTGACCGCCACCGTTGCTTCCCAGGTGTCTCAGCAACCCTCGGCTGCTGCCTCC CCTGGGGAACAAGCCGTTGTAGGCTCGGCCACCACGACCGTCCCCAGCAGTACCAGCAAAGACCGCCCGG TGTCCCAGCCCAGCCTCGTGGGGAGCAAAGAGGAGCCACCGCCGTCCAGAAGTGGAAGTGGCAGTGGTGG CGCCAGCGCCAAAGAGGCGCAGGAGGATAGGAGCCAGCAACAGGATGATATCGAAGAGCTGGAGACCAAG GCAGTGGGAATGTCCAATGACGGTCGCTTTCTCAAATTTGACATCGAAATCGGCAGAGGCTCCTTTAAGA CAGTCTACAAAGGTCTGGACACCGAAACCACTGTGGAAGTCGCCTGGTGTGAATTGCAGGATCGAAAGTT AACAAAATCTGAAAGGCAGAGATTCAAAGAAGAGGCTGAAATGTTAAAGGGTCTTCAACATCCCAACATT GTTCGATTCTATGATTCCTGGGAATCCACAGTAAAAGGGAAAAAATGCATTGTTTTAGTGACTGAACTAA TGACATCTGGAACACTTAAGACGTACTTAAAAAGGTTTAAAGTGATGAAAATCAAAGTTTTAAGAAGCTG GTGTCGGCAAATCCTTAAAGGGCTTCAGTTTCTCCACACACGAACTCCACCAATTATTCACCGGGATCTT AAATGTGACAACATCTTTATCACTGGTCCTACTGGCTCAGTCAAGATCGGAGACCTTGGTCTGGCAACTC TAAAGCGGGCTTCTTTTGCCAAGAGTGTGATAGGTACCCCAGAGTTTATGGCTCCTGAGATGTATGAGGA GAAATATGATGAATCCGTTGATGTTTATGCTTTTGGGATGTGCATGCTTGAGATGGCTACATCTGAATAT CCATACTCAGAATGCCAAAATGCTGCGCAGATCTACCGTCGAGTGACCAGTGGAGTGAAGCCAGCCAGTT TTGACAAAGTAGCAATTCCTGAAGTAAAAGAAATTATTGAAGGATGTATCCGACAAAACAAAGATGAAAG ATATTCCATCAAAGACCTTTTGAACCATGCCTTTTTCCAGGAGGAAACAGGGGTACGGGTAGAATTAGCA GAAGAAGATGATGGAGAAAAGATAGCTATTAAATTATGGCTGCGTATTGAAGATATTAAGAAATTAAAGG

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Protein Sequence:

>MR221512 representing NM_001185020
Red=Cloning site Green=Tags(s)

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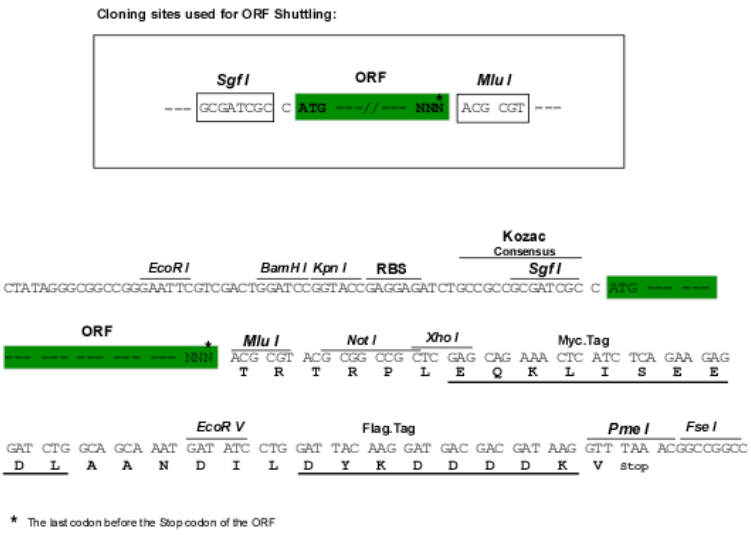
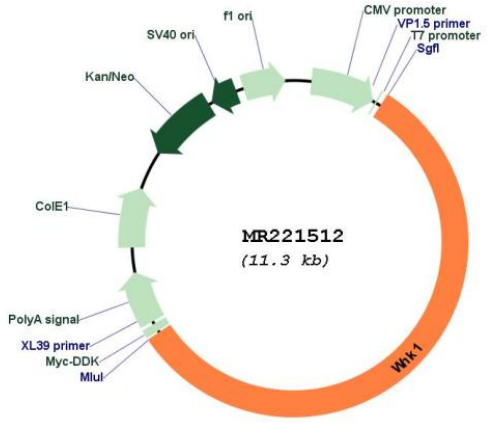
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001185020
ORF Size:	6384 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_001185020.1, NP_001171949.1
RefSeq Size:	9828 bp
RefSeq ORF:	6387 bp
Locus ID:	232341
UniProt ID:	P83741
Cytogenetics:	6 F1
MW:	225.9 kDa
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 SCNN1A, SCNN1B, SCNN1D and SGK1. Controls sodium and chloride ion transport by inhibiting the activity of WNK4, by either phosphorylating the kinase or via an interaction between WNK4 and the autoinhibitory domain of WNK1. WNK4 regulates the activity of the thiazide-sensitive Na-Cl cotransporter, SLC12A3, by phosphorylation. WNK1 may also play a role in actin cytoskeletal reorganization. Phosphorylates NEDD4L. Acts as a scaffold to inhibit SLC4A4, SLC26A6 as well as CFTR activities and surface expression, recruits STK39 which mediates the inhibition (PubMed:21317537, PubMed:23542070). [UniProtKB/Swiss-Prot Function]