

## Product datasheet for MR217367

### Wnk2 (NM\_029361) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Wnk2 (NM_029361) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Wnk2
Synonyms:	1810073P09Rik; AW122246; ESTM15; mKIAA1760; X83337
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR217367 representing NM_029361 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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CGGGCATGGCGGAGCCGCGGGCGAGGGCGCGCGCTCGGGCCCCAGCGCTTCTCGCGCGCAGCGTGGT  
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AAAGACAATGGAGCCATAGAGTTTACCTTTGACTTGGAGAAGGAGACTCCCGACGAGGTGGCCAGGAAA  
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**Protein Sequence:** >MR217367 representing NM\_029361  
 Red=Cloning site Green=Tags(s)

MDGDGRRDAPGALMEAGRGTGSAGMAEPRARAARLGPQRFLRRSVVESDQEPPGLEAAETPSAQPQP  
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 ATPGATPALPVIIPPESEKPD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9008\\_f10.zip](https://cdn.origene.com/chromatograms/mm9008_f10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**


**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:**

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:** 6618 bp

**RefSeq ORF:** 6180 bp

**Locus ID:** 75607

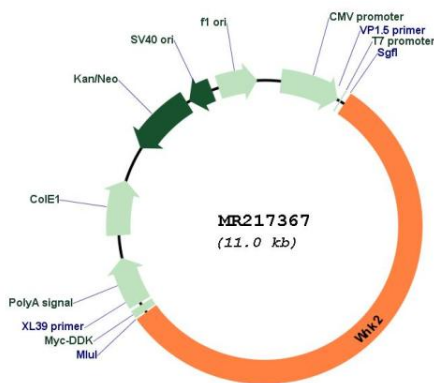
**UniProt ID:** [Q3UH66](#)

**Cytogenetics:** 13 25.07 cM

**MW:** 218.6 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 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]

**Product images:**



Circular map for MR217367