

## Product datasheet for **MC202948**

### Agk (NM\_023538) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Agk (NM_023538) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Agk
Synonyms:	2610037M15Rik; 6720408I04Rik; A1465370; Mulk
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**Fully Sequenced ORF:** >BC019145 sequence for NM\_023538  
 CCACGCGTCCGACACAGGAAAGGCCGGCGCTGAGCGGCGGGCAGCGGAGAAGATGACTGCATTCTTTAA  
 AACGCTTCGAAATCATTGGAAGAAAACACAGCTGGGCTCTGTTTGTGACATGGGGAGGTCAGTGGCTC  
 TACGGGAAGCACTGTGATAACCTGCTAAGAAGAGCAGCCTGTCAAGAAGCTCAGGTGTTTGGCAACCAGC  
 TCATTCCTCCCAATGCACAAGTGAAGAAAGCCACCGTCTTTCTCAATCCCGCAGCTTGCAAAGGCAAAGC  
 CAGAACTCTATTTGAAAAAATGCTGCTCCAATTTTACACCTGTCTGGCATGGATGTGACTGTTGTCAAG  
 ACGGATTATGAGGGACAAGCCAAGAAGCTCTTGGAGTTGATGGAAGCACTGATGTGATCATTGTTGCTG  
 GAGGAGACGGCACACTGCAGGAGTTGTTACTGGAGTACTGAGAAGAACAGATGAGGCTACCTTCAGTAA  
 GATTCCTATTGGATTTATCCCGCTGGGACAGACCAGTAGTTTGGATCACACTCTCTTTGCTGAAAGTGGA  
 AACAAAGTCCAACATATTACAGACGCCACACTTGCCATTGTGAAAGGAGAGACTGTTCCACTTGATGTCT  
 TGCAGATCAAGGGTGAAAAAGAACAACCTGTGTATGCAATGACTGGCCTCCGGTGGGGATCTTTCAGAGA  
 TGCTGGCGTCAAAGTTAGCAAGTACTGGTATCTTGGTCCACTAAAAACAAAGCAGCCACTTTTTCAGC  
 ACTTTCAGGAATGGCCTCAGACTCATCAAGCCTCCATCTTTACACGGGACCTAGAGAGAGACCTCCCA  
 TTGAGCCTGAAGAGACTCTCCAGGCCGTCTCTGTATAGGAGAATATTACGAGGCTTGCCCTATTCTG  
 GGCACAGCCACAGGATGCCTCCTCCGAGAGGTAAGCCCTGAGGTCTGGAAGATGTACAACCTGTCCACC  
 ATTGAACCTGTCCATCACAAACCCGAAACCCCAACTTGACCTGATGAGCAAAGAGGATTTTATGAACATTT  
 GCATTGAACCTGACACTGTCAGCAAAGGAGATTTTCATAATCATAGGAAAGTAAAGAGTGAGAGACCTGG  
 CCTGCGTGCAGCTGGCACCGAGTGCCTCCAAGCCAGCCACTGACTCTGGTTCTTCTGAGGGAACTGAG  
 GGCTCCTTCAGCATTGACAGCGAGGAGTACGAAGCCATGCCGGTGGAGGTCAAACACTGCCCAGAAAGC  
 TGCGGTTCTTCTGTGATCCGAGGAAGAGAGAGCAAATGCTGCCGAGCACATCCCAGTGAGCGACAGCGTG  
 GCGGGCACTCCCAGGCTGCACTGCAAGCCACCAGTGGGACCACATGGGGATGTGTGTCTTCTGTCCCC  
 AGAGGGTCACAGGATCCCAAGGGAATTTTCATGGCAAGTACCCCAAGCCCTCTGTTTCTCTAGAGC  
 ACATACCATGTCATGCACTTGTGTTGGTCACTACCCTGTTAACCCCTCGCTTTCCTTATGTTGAGGTAGT  
 TGATCCCTCTTACACAGTGGTTGTCTCAGGCTGGGTCTAGAACGTTCTTGTACTCCCTGAGTTGGGAAGG  
 GCTGGAGTTTTGTGATTGTCACAGTGGAGAGTGAATCTGTAGACCAAGTTCCCTGTTTTCGTTCTCTG  
 ACCGCTCTGGGGCACCCCGGGAGGAGCTGCTGTCTCCGGGAGCCTCGCCCTCTTCTGGGCTCTCTCA  
 TGGGTGCTGCTCTTGTGAGCTCTGCTTTGGTTGGTTGGTCTCATCCGAAAGCAAATGTGAGGTTG  
 TTCCCTCTTAGCCATGGCAGACGTATTGTAATAATGCTATTTTAAAAACAACTAGTGCTTCTCATTGTT  
 AGTTTGCATGTGTACAACCTGAGGCGCATGTTGAAAATAACTGACCTGGGACCTACCCCAAGTTGACTT  
 TGTAACCTCAACCTGGCAGGAAGCTAGGGTTCTTCATTTTTAAAAAAGCTTCCCAGGTGAATCAACCA  
 TACCGGGAGAAAGTGTTTTAAATCTACTTCATAAACTTAAATGTATTATATATATATATTTTTTAAATC  
 ACATATTTGTGTTGACATCTATTGTTTCCATGGGAAGTTAAACACTTGTCAAGTGTACTTACTAGTATTGT  
 GTAAATATTGTTTAAAAATAAAAAGTGTGATCATTCTTTTAAACATAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_023538

**Insert Size:** 1266 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:** [BC019145](#), [AAH19145](#)

**RefSeq Size:** 2236 bp

**RefSeq ORF:** 1266 bp

**Locus ID:** 69923

**UniProt ID:** [Q9ESW4](#)

**Cytogenetics:** 6 B1

**Gene Summary:** Lipid kinase that can phosphorylate both monoacylglycerol and diacylglycerol to form lysophosphatidic acid (LPA) and phosphatidic acid (PA), respectively (PubMed:15252046). Does not phosphorylate sphingosine (PubMed:15252046). Independently of its lipid kinase activity, acts as a component of the TIM22 complex (By similarity). The TIM22 complex mediates the import and insertion of multi-pass transmembrane proteins into the mitochondrial inner membrane by forming a twin-pore translocase that uses the membrane potential as the external driving force (By similarity). In the TIM22 complex, required for the import of a subset of metabolite carriers into mitochondria, such as ANT1/SLC25A4 and SLC25A24, while it is not required for the import of TIMM23 (By similarity). Overexpression increases the formation and secretion of LPA, resulting in transactivation of EGFR and activation of the downstream MAPK signaling pathway, leading to increased cell growth (By similarity).[UniProtKB/Swiss-Prot Function]