

## Product datasheet for **MG209310**

### 4930432K21Rik (NM\_029045) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	4930432K21Rik (NM_029045) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	4930432K21Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209310 representing NM\_029045  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAATAAGAAGAAACAGCGGAAGCTCAGGGGTCGGCTCCATCCCTCAAAGCCTTCTAAGAACCCACGGC  
 TGAGAGACTCCCATAGCTCCATGATGGTCCATTACACTACTCCAGAGAGTCGGAAGACAGCTCAGAACC  
 TGCTCCTTCTGTAGAGCTAGGCGGGGAGGAACCTACACGAAGCTTTCAGCTGCCAGTGGAGGACACA  
 GGAGCTGCCTCTGACCTCGCAGGATCACCCAAAGAGCTGGTCCCCCTGCCTCCTTCCAGAACTCAGTTG  
 GGAAGTTTGTCCCTCAGTTTGCCAAACCAAGAAAGACAGTAACTAGAAAAGCCAAGGCATGGGAAGAGGA  
 TCTAGAGGGTGCACCACAAGCCAGGAAACAAGGCCAGAGCTGGGAGCCCTCAAAGCAGCCAGCCAGCCA  
 CAGAGAGAGTCCCTGAGGTTCCCTCCCCATGACATCAGACCAGAAGTCCAGACACAGCCAGATGGAACCC  
 TTTCAAAGGAGAGGACAATCTCACTAGATAATAGAAGCCTGGGAACAATGGTTTTGAGATGGCCACAGT  
 TCAAGACAGTAGTAGCCCTGTGATGCTGCTGCTGAAGGCAGGGAGGCAGACAGCAGAGACCCACAG  
 GAAAGAGATGCCCAAGGAGGGGAAGCAGGGGCCAGCATTCTGGGGAACCCAGGAAGGAGAGGACATCC  
 TCTACACATCAGCATTAGCTCCTGCCTCAGAGCCACCTGGTCTGTGGCTCAAGACCTCTCTGTCCCCAC  
 ATATACTCTCAGCAGCACAGCTGCAGCACCCAGCTCCACCAGCCAGCAGATGCCTCTCTTATGGACT  
 GTCATTACAGAAGCGAGCTTAGATCCCTCTGTGCTGCAACAGAGTGTCCACAGTGGCCAAGCTGCTGG  
 GCTCTCTGGATGAGCAGATCCCTGATGGAGGCTGATTGGAACCTGTGAGCTCCACACCTCTTGTCTGA  
 GGAGACCACAGCAGGCAGAGAGGAGGCCAGATGGGAAGAGAGGTGCATGGTGATACCCTGGCAAGCTTC  
 ACTGAGACAGAGCCTGAGAAACAAGAGCCCGTGACGGAAGCTGGAGATCCGGCCATATAGCCCAAGAAA  
 TGGATCCAGTGGTCAAGACCAAGGACTCTGGCTGTGATGAGCAGTCCAGGGGATATAGGAATGCTGCC  
 TTTACCAGCACAGTCCATGAATCAGATGTTGGTAGAGTTACGTGGCCTAACTTGTGATCAAGACTTAGAG  
 GGCTCAGTACCCTCATACCTCCTCAGCTAGAGCACACTTGTGAGTGTGACCTCCCCAGAGCA  
 CCAAGGACTGTACAGCAGCCAGGCATTCCTGTACACCTGGCAGCTCCCTGTCCAGAGACCAGGCTGC  
 ATGGCAGGAGTCTCAGCAATGGAAGTACTTCTGCCTGACAGCCAGATACAGGATGCCTGGATGCC  
 ACTAACATGGAGCAGGGTTTTCTTTCAGGGAGTATGCCAGACCTGGCTGGCCTGTCCCTAGCTCACAGT  
 CCATCGGAGGATCCCAAAGGCAGTACCAAACCTCAATCCAGATCCCATGTGGAACCTGGGCCAGGA  
 GACCTACAGGATGCAGGATGCAACAGACACAGTGCAGGCCTCGTGGTGGAGCTCTCCGGTCTGAACCGG  
 CTGATTATGAGTACCCACCGGACTGGAGGCCTCAAGCGCAGGAAGACCAAGTCTCTGCCTTACCTGA  
 CAAAGGGGTTGGGAGCCTTCTAGAGGGGATCAGAGCTGGAGGGACTTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG209310 representing NM\_029045  
 Red=Cloning site Green=Tags(s)

MNKKKQRNSGVGLHPSKPSKNPRLRDSHSSMMVHSHYSRESEDSSEPAPSVELGGEEPLHEAFSCPVEDT  
 GAASDLAGSPKELVPLPPSQNSVGKFPVQFAKPRKTVTRKAKAWEELEGCTTSQETRPELGALKAAASQP  
 QRESLRFPPHDIRPEVQTQPDGTLKERTISLDNRSLGNNGFEMATVQDSSSPLSDAAAEGREADSRDPQ  
 ERDAQGGEAGAQHSGEPQEGEDILYTSALAPASEPTWSVAQDLSVPTYTLLSSTAAAPSSTSPADASLMDT  
 VITEASLDPSVLQASAPQVAKLLGSLDEQIPDGGCIGTLLSSTPLAEETTAGREEARWEERCHGDTLASF  
 TETEPEKQEPVTEAGDSGHIAQEMDPVVKTKDSGSDEQSPGDIGMLPLPAQSMNQMLVELRGLTCDQDLE  
 GLSTPHTSSQLEHTCAASDPPQSTKDCSSPGIPVHLAAPCPDQAQAWQESSAMELDFLPDSIQDALDA  
 TNMEQGFPSGSMPLGWPVPSSQSIGGSPKAVTKPQSRSHVETWAQETYRMDATDTRVGLVVELSGLNR  
 LIMSTHRDLEAFKRRKTKSLPYLTKGLGSLPRGDQSWRDL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI



<b>ORF Size:</b>	1800 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_029045.1</a> , <a href="#">NP_083321.1</a>
<b>RefSeq Size:</b>	2400 bp
<b>RefSeq ORF:</b>	1803 bp
<b>Locus ID:</b>	74666
<b>UniProt ID:</b>	<a href="#">Q6DIA7</a>
<b>Cytogenetics:</b>	8 C2
<b>Gene Summary:</b>	Meiotic recombination factor component of recombination bridges involved in meiotic double-strand break repair (PubMed:32463460, PubMed:32460033). Modulates the localization of recombinases DMC1:RAD51 to meiotic double-strand break (DSB) sites through the interaction with and stabilization of the BRCA2:HSF2BP complex during meiotic recombination (PubMed:32460033, PubMed:32463460). Indispensable for the DSB repair, homologous synapsis, and crossover formation that are needed for progression past metaphase I, is essential for spermatogenesis and male fertility (PubMed:32463460, PubMed:32460033).[UniProtKB/Swiss-Prot Function]