

## Product datasheet for **RG211725**

### KIR2DS2 (NM\_012312) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KIR2DS2 (NM_012312) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KIR2DS2
Synonyms:	183ActI; CD158b; CD158J; cl-49; KIR-2DS2; KIR2DL1; NKAT-5; NKAT5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	<p>&gt;RG211725 representing NM_012312</p> <p>Red=Cloning site Blue=ORF Green=Tags(s)</p>

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCGCTCACTGTCGTCAGCATGGCGTGTGTTGGGTTCTTCTTGCTGCAGGGGGCCTGGCCACATGAGG  
 GAGTCCACAGAAAACCTTCCCTCCTGGCCACCCAGGTCCCTGGTGAAATCAGAAGAGACAGTCATCCT  
 GCAATGTTGGTCAGATGTCAGGTTTGAGCACTTCTTCTGCACAGAGAGGGGAAGTATAAGGACACTTTG  
 CACCTCATTGGAGAGCACCATGATGGGGTCTCCAAGGCCAACTTCTCCATCGGTCCCATGATGCAAGACC  
 TTGCAGGGACCTACAGATGCTACGGTTCTGTTACTCACTCCCCCTATCAGTTGTCAGCTCCCACTGACCC  
 TCTGGACATCGTCATCACAGGTCTATATGAGAAACCTTCTCTCTCAGCCAGCCGGGCCCCACGGTTTTG  
 GCAGGAGAGAGCGTGACCTTGCTCTGCAGCTCCCGGAGCTCCTATGACATGTACCATCTATCCAGGGAGG  
 GGGAGGCCCATGAACGTAGGTTCTCTGCAGGGCCCAAGGTCAACGGAACATTCCAGGCCGACTTTCTCT  
 GGGCCCTGCCACCCACGGAGGAACCTACAGATGCTTCGGCTCTTCCGTGACTCTCCCTATGAGTGGTCA  
 AACTCGAGTGACCCACTGCTTGTCTGTACAGGAAACCTTCAAATAGTTGGCCTTCACCCACTGAAC  
 CAAGCTCCAAAACCGTAACCCAGACACCTGCATGTTCTGATTGGGACCTCAGTGGTCAAAATCCCTTT  
 CACCATCTCTCTTCTTCTCTTTCATCGCTGGTGTCTCAACAAAAAATGCTGCTGTAATGGACCA  
 GAGCCTGCAGGGAACAGAACAGTGAACGCGAGGATTCTGATGAACAAGACCATCAGGAGGTGTCATACG  
 CA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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**Protein Sequence:** >RG211725 representing NM\_012312  
 Red=Cloning site Green=Tags(s)

MSLTVVSMACVGFFLLQGAWPHEGVHRKPSLLAHPGPLVKSEETVILQCWSDVRFELLLHREGKYKDTL  
 HLIGEHHDGVSKANFSIGPMMQDLAGTYRCYGSVTHSPYQLSAPSDPLDIVITGLYEKPSLSAQPGPTVL  
 AGESVTLSCSSRSSYDMYHL SREGEAHERRF SAGPKVNGTFQADFPLGPATHGGTYRCFGSFRDSPYEWS  
 NSSDPLLVSVTGNPSNSWPSPTESPSSKTGNPRHLHVLIGTSVVKIPFTILLFLLHRWCSNKKNAAVMDQ  
 EPAGNRTVNSEDSDEQDHQEVSYA

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGCGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - -

--- GAA GAA AGA GTT TAA ACGGCGGCGCGGAGCT

- - E E R V Stop

**ACCN:** NM\_012312

**ORF Size:** 912 bp

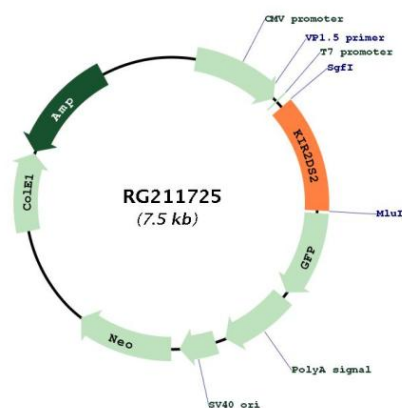
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_012312.1, NP_036444.1</u>
<b>RefSeq Size:</b>	1557 bp
<b>RefSeq ORF:</b>	915 bp
<b>Locus ID:</b>	100132285
<b>UniProt ID:</b>	<u>P43631</u>
<b>Cytogenetics:</b>	19q13.4
<b>Gene Summary:</b>	<p>Killer cell immunoglobulin-like receptors (KIRs) are transmembrane glycoproteins expressed by natural killer cells and subsets of T cells. The KIR genes are polymorphic and highly homologous and they are found in a cluster on chromosome 19q13.4 within the 1 Mb leukocyte receptor complex (LRC). The gene content of the KIR gene cluster varies among haplotypes, although several "framework" genes are found in all haplotypes (KIR3DL3, KIR3DP1, KIR3DL4, KIR3DL2). The KIR proteins are classified by the number of extracellular immunoglobulin domains (2D or 3D) and by whether they have a long (L) or short (S) cytoplasmic domain. KIR proteins with the long cytoplasmic domain transduce inhibitory signals upon ligand binding via an immune tyrosine-based inhibitory motif (ITIM), while KIR proteins with the short cytoplasmic domain lack the ITIM motif and instead associate with the TYRO protein tyrosine kinase binding protein to transduce activating signals. The ligands for several KIR proteins are subsets of HLA class I molecules; thus, KIR proteins are thought to play an important role in regulation of the immune response. This gene represents a haplotype-specific family member that encodes a protein with a short cytoplasmic tail. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]</p>

## Product images:



Circular map for RG211725