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# Product datasheet for SC317452

## KIR2DS4 (NM_012314) Human Untagged Clone

### Product data:

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| **Product Type:** | Expression Plasmids |
| **Product Name:** | KIR2DS4 (NM_012314) Human Untagged Clone |
| **Tag:** | Tag Free |
| **Symbol:** | KIR2DS4 |
| **Synonyms:** | CD158I; KIR-2DS4; KIR1D; KIR412; KKA3; NKAT-8; NKAT8 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Fully Sequenced ORF:** | >NCBI ORF sequence for NM_012314, the custom clone sequence may differ by one or more nucleotides |

ATGTCGCTCATGGTCATCATCATGGCGTGTGTTGGGTTCTTCTTGCTGCAGGGGGCCTGGCCACAGGAGG
GAGTCCACAGAAAACCTTCCTTCCTGGCCCTCCCAGGTCACCTGGTGAAATCAGAAGAGACAGTCATCCT
GCAATGTTGGTCGGATGTCATGTTTGAGCACTTCCTTCTGCACAGAGAGGGGAAGTTTAACAACACTTTG
CACCTCATTGGAGAGCACCATGATGGGGTTTCCAAGGCCAACTTCTCCATTGGTCCCATGATGCCTGTCC
TTGCAGGAACCTACAGATGCTACGGTTCTGTTCCTCACTCCCCCTATCAGTTGTCAGCTCCCAGTGACCC
TCTGGACATGGTGATCATAGGTCTATATGAGAAACCTTCTCTCTCAGCCCAGCCGGGCCCCACGGTTCAG
GCAGGAGAGAATGTGACCTTGTCCTGCAGCTCCCGGAGCTCCTATGACATGTACCATCTATCCAGGGAAG
GGGAGGCCCATGAACGTAGGCTCCCTGCAGTGCGCAGCATCAACGGAACATTCCAGGCCGACTTTCCTCT
GGGCCCTGCCACCCACGGAGGGACCTACAGATGCTTCGGCTCTTTCCGTGACGCTCCCTACGAGTGGTCA
AACTCGAGTGATCCACTGCTTGTTTCCGTCACAGGAAACCCTTCAAATAGTTGGCCTTCACCCACTGAAC
CAAGCTCCAAAACCGGTAACCCCAGACACCTACATGTTCTGATTGGGACCTCAGTGGTCAAAATCCCTTT
CACCATCCTCCTCTTCTTTCTCCTTCATCGCTGGTGCTCCGACAAAAAAAATGCTGCTGTAATGGACCAA
GAGCCTGCAGGGAACAGAACAGTGAACAGCGAGGATTCTGATGAACAAGACCATCAGGAGGTGTCATACG
CATAA

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| **Restriction Sites:** | Please inquire |
| **ACCN:** | NM_012314 |

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| **OTI Disclaimer:** | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.<br><br>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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA. |
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_012314.3, NP_036446.3 |
| **RefSeq Size:** | 1586 bp |
| **RefSeq ORF:** | 915 bp |
| **Locus ID:** | 3809 |
| **UniProt ID:** | P43632 |
| **Cytogenetics:** | 19q13.42 |
| **Protein Families:** | Transmembrane |
| **Protein Pathways:** | Antigen processing and presentation, Natural killer cell mediated cytotoxicity |

**Gene Summary:** 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. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (1) represents the functional allele (KIR2DS4*001) and encodes a functional, membrane-bound, activating receptor (isoform 1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.