

## Product datasheet for **RG231400**

### CD22 (NM\_001185100) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD22 (NM_001185100) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CD22
Synonyms:	SIGLEC-2; SIGLEC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG231400 representing NM\_001185100  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCATCTCCTCGGCCCTGGCTCCTGCTCCTGGTTCTAGAATACTTGGCTTTCTCTGACTCAAGTAAAT  
 GGGTTTTTGAGCACCTGAAACCCTCTACGCCTGGGAGGGGCCTGCGTCTGGATCCCCTGCACCTACAG  
 AGCCCTAGATGGTGACCTGGAAAAGCTTCACTCTGTTCCACAATCCTGAGTATAACAAGAACACCTCGAAG  
 TTTGATGGGACAAGACTCTATGAAAGCACAAGGATGGGAAGGTTCTTCTGAGCAGAAAAGGTGCAAT  
 TCCTGGGAGACAAGAATAAGAACTGCACACTGAGTATCCACCCGGTGCACCTCAATGACAGTGGTCACT  
 GGGGCTGAGGATGGAGTCCAAGACTGAGAAATGGATGGAACGAATACACCTCAATGTCTCTGAAAGGCC  
 TTTCCACCTCATATCCAGCTCCCTCCAGAAATCAAGAGTCCCAGGAAGTCACTCTGACCTGCTTGTCTGA  
 ATTTCTCCTGCTATGGGTATCCGATCCAATTGCAGTGGCTCCTAGAGGGGTTCCAATGAGGAGGCTGC  
 TGTACCTCGACCTCCTTGACCATCAAGTCTGTCTTACCCGGAGCGAGCTCAAGTTCTCCACAGTGG  
 AGTCACCATGGGAAGATTGTGACCTGCCAGCTTCAAGGATGCAGATGGGAAGTTCCCTCCAATGACACGG  
 TGCAGCTGAACGTGAAGCACACCCCGAAGTTGGAGATCAAGGTCACCTCCAGTGTGCCATAGTGAGGGA  
 GGGGACTCTGTGACCATGACCTGCGAGGTGAGCAGCAGCAACCCGGAGTACACGACGGTATCCTGGCTC  
 AAGGATGGGACCTCGCTGAAGAAGCAGAATACATTCACGCTAAACCTGCGCGAAGTGACCAAGGACCAGA  
 GTGGGAAGTACTGCTGTCAAGTCTCCAATGACGTGGGCCCGGGAAGTCCGGAAGAAGTGTCTGCAAGT  
 GCAGTATGCCCGGAACCTTCCACGGTTCAGATCCTCCACTACCCGGCTGTGGAGGAAGTCAAGTCCGAG  
 TTTCTTTGCATGTCACTGGCCAATCCTCTTCCAACAAATACACGTGGTACCACAATGGGAAGAAATGC  
 AGGGAAGGACAGAGGAGAAAGTCCACATCCCAAGATCCTCCCTGGCACGCTGGGACTTATTCCTGTGT  
 GGCAGAAAACATTCTTGGTACTGGACAGAGGGGCCCGGAGCTGAGCTGGATGTCCAGTATCCTCCAAG  
 AAGGTGACCACAGTGATTCAAAACCCATGCCGATTCGAGAAGGAGACACAGTGACCTTTCTGTAAT  
 ACAATTCAGTAACCCAGTGTACCCGGTATGAATGGAACCCCATGGCGCTGGGAGGAGCCATCGCT  
 TGGGGTGTGAAGATCCAAAACGTTGGCTGGGACAACACAACCATCGCTGCGCAGCTTGTAAATAGTTGG  
 TGCTCGTGGGCCCTCCCTGTGCGCCTGAATGTCCAGTATGCCCCCGAGACGTGAGGGTCCGGAAAAATCA  
 AGCCCTTTCCGAGATTCACCTCTGGAACTCGGTGAGCCTCCAATGTGACTTCTCAAGCAGCCACCCCAA  
 AGAAGTCCAGTTCTTCTGGGAGAAAAATGCGAGGCTTCTGGGAAAGAAAGCCAGCTGAATTTTGACTCC  
 ATCTCCCAAGAGATGCTGGGAGTTACAGCTGCTGGGTGAACAACCTCCATAGGACAGACAGCGTCCAAGG  
 CCTGGACACTTGAAGTGTGTATGCACCCAGGAGGCTGCGTGTGTCCATGAGCCCGGGGACCAAGTGT  
 GGAGGGGAAGAGTGAACCCCTGACCTGTGAGAGCGACGCCAACCCCTCCCGTCTCCCACTACACCTGGTT  
 GACTGGAATAACCAAGCCTCCCTACCACAGCCAGAAGCTGAGATTGGAGCCGGTGAAGGTCCAGCACT  
 CGGGTGCCTACTGGTGCCAGGGGACCAACAGTGTGGGCAAGGGCCGTTCCGCTCTCAGCACCCCTCACCGT  
 CTAATAGCCCGGAGACCATCGGCAGGCGAGTGGCTGTGGGACTCGGGTCTGCCTCGCCATCCTCATC  
 CTGGCAATCTGTGGGCTCAAGCTCCAGCGACGTTGGAAGAGGACACAGAGCCAGCAGGGGCTTCAAGGAG  
 ATTCAGCGGCCAGAGCTTCTTTGTGAGGAATAAAAAGAGATGCAGAGTCTCAGAGATGCAGAGACCTC  
 CCCCAGACTGCGA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG231400 representing NM\_001185100  
 Red=Cloning site Green=Tags(s)

MHLLGPWLLLLVLEYLAFSDSSKVVFEHPETLYAWEGACVWIPCTYRALDGDLESFILFHNPEYKNKTSK  
 FDGTRL YESTKDGKVPSEQRVQFLGDKNKNCTLSIHPVHLNDSGQLGLRMEKTEKWMERIHLNVSERP  
 FPPHIQLPPEIQESQEVTLTCLLNFSYGYPIQLQWLLLEGVPMRQAAVTSTSLTIKSVFTRSELKFSPOW  
 SHHGKIVTCQLQDADGKFLSNDTVQLNVKHTPKLEIKVTPSDAIVREGDSVTMTCEVSSSNPEYTTVSWL  
 KDGTSLKKQNTFFTLNLRVTKDQSGKYCCQVSNVGVGRSEEVFLQVQYAPEPSTVQILHSPAVEGSQVE  
 FLCMSLANPLPTNYTWYHNGKEMQGRTEEKVHIPKILPWHAGTYSVAENILGTGQRGPGAELDVQYPPK  
 KVTTVIQNPMPIREGDTVTLSCNYNSSNPVTRYEWKPHGAWEEPGLVLIQNVGWDNTTIIAACACNSW  
 CSWASPVALNVQYAPRDVVRKIKPLSEIHSGNSVSLQCDFSSSHPKVQFFWEKNGRLLGKESQLNFDS  
 ISPEDAGSYSCWVNSIGQTASKAWTLEVLVYAPRRLRVSMSPGDQVMEGKSATLTCESDANPPVSHYTW  
 DWNNQSLPYHSQKLRLEPVKVQVHSGAYWCQGTNSVGKRSPLSTLTVYYPETIGRRVAVGLGSCLAILI  
 LAICGLKLRWRKRTQSQQGLQENSSGQSFVVRNKKRCRVL RDAETSPGLR

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_001185100

**ORF Size:** 2253 bp

**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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_001185100.2](#)

**RefSeq Size:** 3181 bp

**RefSeq ORF:** 2256 bp

**Locus ID:** 933

**UniProt ID:** [P20273](#)

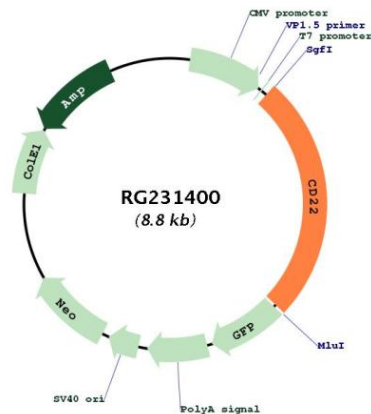
**Cytogenetics:** 19q13.12

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** B cell receptor signaling pathway, Cell adhesion molecules (CAMs), Hematopoietic cell lineage

**Gene Summary:**

Mediates B-cell B-cell interactions. May be involved in the localization of B-cells in lymphoid tissues. Binds sialylated glycoproteins; one of which is CD45. Preferentially binds to alpha-2,6-linked sialic acid. The sialic acid recognition site can be masked by cis interactions with sialic acids on the same cell surface. Upon ligand induced tyrosine phosphorylation in the immune response seems to be involved in regulation of B-cell antigen receptor signaling. Plays a role in positive regulation through interaction with Src family tyrosine kinases and may also act as an inhibitory receptor by recruiting cytoplasmic phosphatases via their SH2 domains that block signal transduction through dephosphorylation of signaling molecules. [UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for RG231400