

## Product datasheet for **RG202455**

### CD44 (NM\_001001389) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD44 (NM_001001389) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CD44
Synonyms:	CDW44; CSPG8; ECMR-III; HCELL; HUTCH-I; IN; LHR; MC56; MDU2; MDU3; MIC4; Pgp1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG202455 representing NM\_001001389  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACAAGTTTTGGTGGCAGCAGCCTGGGGACTCTGCCTCGTGCCGCTGAGCCTGGCGCAGATCGATT  
 TGAATATAACCTGCCGCTTTCAGGTGTATTCCACGTGGAGAAAAATGGTCGCTACAGCATCTCTCGGAC  
 GGAGGCCGCTGACCTCTGCAAGGCTTTCATAGCACCTTGCCACAATGGCCAGATGGAGAAAGCTCTG  
 AGCATCGGATTTGAGACCTGCAGGTATGGGTTCA TAGAAGGGCATGTGGTGATTCCCCGGATCCACCCCA  
 ACTCCATCTGTGCAGCAAACAACACAGGGGTGTACATCCTCACATCCAACACCTCCAGTATGACACATA  
 TTGCTTCAATGCTTCAGCTCCACCTGAAGAAGATTGTACATCAGTCACAGACCTGCCAATGCCTTTGAT  
 GGACCAATTACCATAACTATTGTTAACCGTGATGGCACCCGCTATGTCCAGAAAGGAGAATACAGAACGA  
 ATCCTGAAGACATCTACCCAGCAACCCTACTGATGATGACGTGAGCAGCGGCTCCTCCAGTAAAGGAG  
 CAGCACTTCAGGAGGTTACATCTTTTACACCTTTTCTACTGTACACCCCATCCAGACGAAGACAGTCCC  
 TGGATCACCGACAGCACAGACAGAATCCCTGCTACCAGTACGTCTTCAAATACCATCTCAGCAGGCTGGG  
 AGCCAAATGAAGAAAATGAAGATGAAAGAGACAGACACCTCAGTTTTTCTGGATCAGGCATTGATGATGA  
 TGAAGATTTTATCTCCAGCACCATTTCAACCACACCACGGGCTTTTGACCACAAAAACAGAACCAGGAC  
 TGGACCCAGTGGAAACCAAGCCATTCAAATCCGGAAGTGCTACTTCAGACAACCACAAGGATGACTGATG  
 TAGACAGAAAATGGCACCCTGCTTATGAAGAACTGGAACCCAGAAGCACACCTCCCTCATTACCA  
 TGAGCATCATGAGGAAGAAGAGACCCACATTCTACAAGCACAATCCAGGCAACTCCTAGTAGTACAACG  
 GAAGAAACAGCTACCCAGAAGGAACAGTGGTTGGCAACAGATGGCATGAGGGATATCGCCAAACACCCA  
 GAGAAGACTCCCATTCGACAACAGGGACAGCTGCAGCCTCAGCTCATACCAGCCATCCAATGCAAGGAAG  
 GACAACACCAAGCCCAGAGGACAGTTCCTGGACTGATTTCTTCAACCCAATCTCACACCCCATGGGACGA  
 GGTCAATCAAGCAGGAAGAAGGATGGATATGGACTCCAGTCATAGTACAACGCTTCAGCCTACTGCAATC  
 CAAACACAGGTTTGGTGAAGATTTGGACAGGACAGGACCTCTTCAATGACAACGCAGCAGAGTAATTC  
 TCAGAGCTTCTACATCACATGAAGGCTTGAAGAAGATAAAGACCATCCAACAACCTTCTACTCTGACA  
 TCAAGCAATAGGAATGATGTACAGGTGGAAGAAGAGACCCAAATCATTCTGAAGGCTCAACTACTTTAC  
 TGAAGGTTATACCTCTCATTACCCACACAGGAAGAAAGCAGGACCTTCATCCAGTGACCTCAGCTAA  
 GACTGGGTCTTTGGAGTTACTGCAGTTACTGTTGGAGATTCCAACCTAATGTCAATCGTTCCTTATCA  
 GGAGACCAAGACACATTCACCCAGTGGGGGCTCCCATACCCTCATGGATCTGAATCAGATGGACT  
 CACATGGGAGTCAAGAAGGTGGAGCAAACAACCTCTGGTCTATAAGGACACCCCAAATTCAGAAATG  
 GCTGATCATCTTGGCATCCCTCTTGGCCTTGGCTTTGATTCTTGCAAGTTGCATTGCAGTCAACAGTCGA  
 AGAAGGTGTGGGCAGAAGAAAAGCTAGTGATCAACAGTGGCAATGGAGCTGTGGAGGACAGAAAGCCAA  
 GTGGACTCAACGGAGAGGCCAGCAAGTCTCAGGAAATGGTGCAATTTGGTGAACAAGGAGTCGTCAGAAAC  
 TCCAGACCAGTTTATGACAGCTGATGAGACAAGGAACCTGCAGAAATGTGGACATGAAGATTGGGGTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202455 representing NM\_001001389  
 Red=Cloning site Green=Tags(s)

MDKFWHAAWGLCLVPLSLAQIDLNITCRFAGVFHVEKNGRYSISRTEAADLCKAFNSTLPTMAQMEKAL  
 SIGFETCRYGFIIEGHVVIPRIHPNSICAAANTGVYILTSNTSQYDYCFNASAPPEEDCTSVTDLNPAFD  
 GPITITIVNRDGTTRYVQKGEYRTNPEDIYPSNPTDDDVSSGSSERSSTSGGYIFYTFSTVHPIPEDSP  
 WITDSTDRIPATSTSSNTISAGWEPNEENEDERDRHLSFSGSGIDDEDFISSTI STTPRAF DHTKQND  
 WTQWNPSHSNPEVLLQTTTRMTDVRNGTTAYEGNWNPEAHPPLIHHEHHEEEETPHSTSTIQATPSSTT  
 EETATQKEQWFGNRWHEGYRQTPREDSHTTGTAAASAHTSHPMQGRTPSPEDSSWTFDFNPISHPMGR  
 GHQAGRRMDMSSHSTTLQPTANPNTGLVEDLDRTGPLSMTTQQSNSQSFSTSHGLEEDKDHPPTSTLT  
 SSNRNDVTGRRDPNHSEGSTLLEGYTSHYPHTKESRTFIPVTSAKTGSFGVTAVTGDSNSNVNRSL  
 GDQDTFHPSGSHHTHGESDGHSHGSQEGGANTTSGPIRTPQIPEWLIILASLLALALILAVCIANVSR  
 RRCGQKKKLVINSGNGAVEDRKP SGLNGEASKSQEMVHLVNKESSETPDQFMTADETRNLQNVDMKIGV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



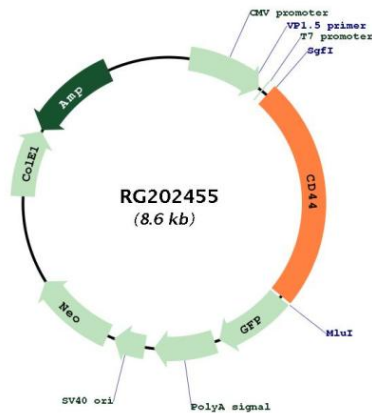
ACCN: NM\_001001389

ORF Size: 2097 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<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_001001389.1</a> , <a href="#">NP_001001389.1</a>
<b>RefSeq Size:</b>	5619 bp
<b>RefSeq ORF:</b>	2100 bp
<b>Locus ID:</b>	960
<b>UniProt ID:</b>	<a href="#">P16070</a>
<b>Cytogenetics:</b>	11p13
<b>Protein Families:</b>	Adult stem cells, Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Stem cell relevant signaling - DSL/Notch pathway, Transmembrane
<b>Protein Pathways:</b>	ECM-receptor interaction, Hematopoietic cell lineage

**Gene Summary:**

The protein encoded by this gene is a cell-surface glycoprotein involved in cell-cell interactions, cell adhesion and migration. It is a receptor for hyaluronic acid (HA) and can also interact with other ligands, such as osteopontin, collagens, and matrix metalloproteinases (MMPs). This protein participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing, hematopoiesis, and tumor metastasis. Transcripts for this gene undergo complex alternative splicing that results in many functionally distinct isoforms, however, the full length nature of some of these variants has not been determined. Alternative splicing is the basis for the structural and functional diversity of this protein, and may be related to tumor metastasis. [provided by RefSeq, Jul 2008]

**Product images:**


Circular map for RG202455