

## Product datasheet for **SC108218**

### GDNF Receptor alpha 2 (GFRA2) (NM\_001495) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GDNF Receptor alpha 2 (GFRA2) (NM_001495) Human Untagged Clone
Tag:	Tag Free
Symbol:	GDNF Receptor alpha 2
Synonyms:	GDNFRB; NRTNR-ALPHA; NTNRA; RETL2; TRNR2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC108218 sequence for NM\_001495 edited (data generated by NextGen Sequencing)

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ATGATCTTGGCAAACGTCTTCTGCCTCTTCTTTCTAGACGAGACCCTCCGCTCTTTG
GCCAGCCCTTCCCTCCCTGCAGGGCCCCGAGCTCCACGGCTGGCGCCCCCAGTGGACTGT
GTCCGGGCAATGAGCTGTGTGCCGCGAATCCAACCTGCAGCTCTCGCTACCGCACTCTG
CGGCAGTGCCTGGCAGGCCGCGACCCGCAACACCATGCTGGCCAACAAGGAGTGCCAGGCG
GCCTTGGAGGTCTTGCAGGAGAGCCCCGCTGTACGACTGCCGCTGCAAGCGGGGCATGAAG
AAGGAGCTGCAGTGTCTGCAGATCTACTGGAGCATCCACCTGGGGCTGACCGAGGTGAG
GAGTTCTACGAAGCCTCCCCCTATGAGCCGGTGACCTCCCGCTCTCGGACATCTTCAGG
CTTGCTTCAATCTTCTCAGGGACAGGGGACAGCCGGTGGTCAGCGCCAAGAGCAACCAT
TGCCTGGATGCTGCCAAGGCTGCAACCTGAATGACAACCTGCAAGAAGCTGCGCTCTCC
TACATCTCCATCTGCAACCGGAGATCTCGCCACCGAGCGCTGCAACCGCCGCAAGTGC
CACAAGGCCCTGCGCCAGTTCTTCGACCGGGTCCCAGCGAGTACACCTACCGCATGCTC
TTCTGCTCCTGCCAAGACCAGGCGTGCCTGAGCGCCCGCGCAACCATCTGCCACG
TGCTCCTATGAGGACAAGGAGAAGCCCAACTGCCTGGACCTGCGTGGCGTGTGCCGGACT
GACCACCTCTGTGGTCCCGGCTGGCCGACTTCCATGCCAATTGTGAGCCTCCTACCAG
ACGGTCACCAGCTGCCCTGCGGACAATTACCAGGCGTGTCTGGGCTCTTATGCTGGCATG
ATTGGGTTTGACATGACACCTAACTATGTGGACTCCAGCCCCACTGGCATCGTGGTGTCC
CCCTGGTGAGCTGTCTGTGGCAGCGGAACATGGAGGAGGAGTGTGAGAAGTTCTCAGG
GACTTCACCGAGAACCATGCCTCCGGAACGCCATCCAGGCCCTTGGCAACGGCACGGAC
GTGAACGTGTCCCAAAAGGCCCTCGTCCAGGCCACCCAGGCCCTCGGGTGGAGAAG
ACGCCCTCTTTGCCAGATGACCTCAGTGACAGTACCAGCTTGGGGACCAGTGTCAAC
ACCTGCACGTCTGTCCAGGAGCAGGGGCTGAAGGCCAACAACCTCAAAGAGTTAAGCATG
TGCTTACAGAGCTCACGACAAAATATCATCCAGGGAGTAACAAGGTGATCAAACCTAAC
TCAGGCCCCAGCAGACGACCGTCCGGCTGCCTTGACCGTGTCTGTCTGCTGATGCTG
AACAGGCCTTGAG
    
```

Clone variation with respect to NM\_001495.4  
 789 g=>c;1385 t=>a

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_001495 unedited

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GGTTCAAATTTGTATACGACTACTATAGGCGGCCGGAATTCGCACGAGGCAGCCAGAG
GCGAGAATCGCAGGACTCGGGATCTTATCGGGTGGACTAGTGGGATCTCCGCATTGGA
TTTGGGGCTGATTACCACTGCTTGCCCTATTATTATTGTTGTTGTTACTACTATTATTTT
TTTTACCAAGGGAGAAAGACAAAAAACGGTGGGATTTATTTAACATGATCTTGGCAA
CGTCTTCTGCCTTCTTCTTTCTACTCGAGACCCTCCGCTCTTTGGCCAGCCCTTCCTC
CCTGCAGGGCCCCGAGCTCCACGGCTGGCGCCCCCAGTGGACTGTGTCCGGGCCAATGA
GCTGTGTGCCCGCAATCCAACCTGCAGCTCTCGCTACCGCACTCTGCGGCAAGTGCCTGGC
AGGCCGCGACCGCAACACCATGTGTGGCCAACAAGGAGTGCCAGGCGGCCTTGGAGGTCTT
GCAGGAGAGCCCCTGTACGACTGCCGCTGCAAGCGGGCATGAAGAAGGAGCTGCAGTG
TCTGCAGATCTACTGGAGCATCCACCTGGGGCTGACCGAGGGTGGAGGTTCTACGAAGC
CTCCCCCTATGAGCCGGTGACCTCCCGCTCTCGGACATCTTCAGGCTTGCTTCAATCTT
CTCAGGGACAGGGGACAGCCGGTGGTCAAGCGCAAGAGCAACCATGCTGGATGCTGC
CAAGGCCTGNCACCTGAATGACAACCTGCAATAAGCTGCGCTCCTTCTACATCTNCATCT
GCAACCGGAGATCTCGCCACCGAGCGTGAACCGCCGCCAGTGCCACAAGGCCCTGC
GCCAGTTCTTTGACCGGGTGCCAGCGAGTACACCTACCGCATGTCTTCTGCTCCTGCC
AGAACAGCCGTGCGCTGAGC
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_001495 unedited TACTATGNACGCGCCGCAATCTATGATCGGTTTTTTTTTTTTTTTTTTTTTTTTCAGCTTGCT TCCTAACACGTTTATTGGAGCCTTGTTAAGCTTGGATGCGGATCAGGAGCCCCACCAG AGCCCAGCCAGGCTGACTGGGCGAGGCACTGCGGGCCAATGTCCTTTTTCCCCATTAT AGACAACAGTATTAATAAAAAATAAACTTTACAATAATACATTTTCGCTCATCTGTTGGGG TATTATTTCCATAGTTTTGTTGCTTAAAAAAGGAAAGAAAGGGGAAACCACACAATATA TGTATATGGATGTATATACATATATGTTAGGAGAGGAGCCCCGGTATGTACATACAGT TGACGTACGTCTAGGAAATGAGGAAAGAGAAAGGGGAAAGGAGGAGGAGGAGGAGAAGACAG CAGGAAAGCTTGAGGGCCACGGTGCTGCAGACACACCCGGCTGTGGTCTCTCCCTC CCTCTCCCAAAGGGAGGCTGCCAAAGGACCCACGAGAAAGCAAAGAAGCCAACAAAGG ACCGTTTCTCTGACTTCAAAATTTCTGCCACCGAGAAAGAAGCTGGTGCCCAAGTTTT AATGCCTCGCCACAAGGGCTCTCCAGGCAGGCTGAGCTCTCAAGCCCTCTGGAGCTGG CCCCAGCCCCAACACTCCGTGCTACAGTCAGGGGGGAGCCAGCACGGTGCGAACCCCC TCCACCGCATCCGTGGGAAGTCCCACACCAGCTGCAGACCCACCAGCCCCACCCGAG GGCAGAGAGGGAGGGCAAACCATCTCCATCCTTGAAGCCAAAGGCTGAAGGTGGACCCT CATGGCAGCCCCGCTGCCCGCTGACGATGCCCTGCCACCCCAAGGGTCCCAATGG GCACCTGGGGATCACCTGGTTGTCTGCCCAACCAGCTTAGGCAGNCCATGATCCTTCG TTG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001495
<b>Insert Size:</b>	3090 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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_001495.4</a> , <a href="#">NP_001486.4</a>
<b>RefSeq Size:</b>	3376 bp
<b>RefSeq ORF:</b>	1395 bp
<b>Locus ID:</b>	2675
<b>UniProt ID:</b>	<a href="#">O00451</a>
<b>Cytogenetics:</b>	8p21.3
<b>Domains:</b>	GDNF

**Protein Families:** Druggable Genome

**Gene Summary:** Glial cell line-derived neurotrophic factor (GDNF) and neurturin (NTN) are two structurally related, potent neurotrophic factors that play key roles in the control of neuron survival and differentiation. The protein encoded by this gene is a member of the GDNF receptor family. It is a glycosylphosphatidylinositol(GPI)-linked cell surface receptor for both GDNF and NTN, and mediates activation of the RET tyrosine kinase receptor. This encoded protein acts preferentially as a receptor for NTN compared to its other family member, GDNF family receptor alpha 1. This gene is a candidate gene for RET-associated diseases. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009]  
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (a).