

## Product datasheet for **RG200109**

### **DHRS4 (NM\_021004) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DHRS4 (NM_021004) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DHRS4
Synonyms:	CR; NRDR; PHCR; PSCD; SCAD-SRL; SDR-SRL; SDR25C1; SDR25C2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200109 representing NM_021004 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGGCTGCTAGGCCTCTGTGCCTGGGCACGGAAGTCGGTGCGGTTGGCCAGCTCCAGGATGACCC  
GCCGGGACCCGCTCACAATAAGGTGGCCCTGGTAACGGCCTCCACCGACGGGATCGGCTTCGCCATCGC  
CCGGCGTTTGGCCAGGACAGGGCCACGTGGTCGTCAGCAGCCGGAAGCAGCAGAATGTGGACCAGGCG  
GTGGCCACGCTGCAGGGGAGGGGCTGAGCGTGACGGGCACTGTGTGCCATGTGGGAAGCGGAGGACC  
GGGAGCGGCTGGTGGCCATGGCTGTGAAGCTTCATGGAGGTATCGATATCCTAGTCTCCAATGCTGCTGT  
CAACCTTTCTTTGGAAGCCTAATGGATGTCACCGAGGAGGTGTGGGACAAGACTCTGGACATTAATGTG  
AAGGCCCCAGCCCTGATGACAAAGGCAGTGGTGCCAGAAATGGAGAAACGAGGAGCGGCTCAGTGGTGA  
TCGTGTCTTCCATAGCAGCCTTCAGTCCATCTCCTGGCTTCAGTCCTTACAATGTCAGTAAAACAGCCTT  
GCTGGGCTCAACAATACCCTGGCCATAGAGCTGGCCCCAAGGAACATTAGGGTGAAGTGCCTGCACCTG  
GACTTATCAAGACTAGCTTCAGCAGGATGCTCTGGATGGACAAGGAAAAAGAGGAAAGCA

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200109 representing NM\_021004  
 Red=Cloning site Green=Tags(s)

MARLLGLCAWARKSVRLASSRMTRRDPLTNKVALVTASTDGIGFAIARRLAQDRAHVVVSSRKQQNVQQA  
 VATLQGEGLSVTGTVCHVGKAEDRERLVAMAVKLHGGIDILVSNAAVNPFPGSLMDVTEEVWDKTLIDINV  
 KAPALMTKAVVPEMEKRGGSVVIVSSIAAFSPSPGFSYVNVSKTALLGLNNTLAIELAPRNIRVNLHL  
 DLSRLASAGCSGWTRKKRKA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_021004

**ORF Size:** 690 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).

**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\\_021004.2](#), [NP\\_066284.2](#)

**RefSeq Size:** 1289 bp

**RefSeq ORF:** 837 bp

**Locus ID:** 10901

**UniProt ID:** [Q9BTZ2](#)

**Cytogenetics:** 14q11.2

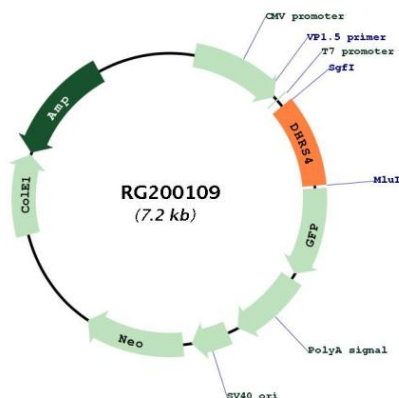
**Domains:** adh\_short

**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Retinol metabolism

**Gene Summary:** Reduces all-trans-retinal and 9-cis retinal. Can also catalyze the oxidation of all-trans-retinol with NADP as co-factor, but with much lower efficiency. Reduces alkyl phenyl ketones and alpha-dicarbonyl compounds with aromatic rings, such as pyrimidine-4-aldehyde, 3-benzoylpyridine, 4-benzoylpyridine, menadione and 4-hexanoylpyridine. Has no activity towards aliphatic aldehydes and ketones (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RG200109