

Product datasheet for **RC202503**

GPSN2 (TECR) (NM_138501) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPSN2 (TECR) (NM_138501) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPSN2
Synonyms:	GPSN2; MRT14; SC2; TER
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202503 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGCATTACGAGGTGGAGATTCTGGACGCAAAGACAAGGGAGAAGCTGTGTTTCTTGGACAAGGTGG
AGCCCCACGCCACCATTGCGGAGATCAAGAACCTTTCACTAAGACCCATCCGCAGTGGTACCCCGCCCG
CCAGTCCCTCCGCTGGACCCCAAGGGCAAGTCCCTGAAGGATGAGGATGTTCTGCAGAAGCTGCCCGTG
GGCACCACGGCCACACTGTACTCCGGGACCTGGGGGCCAGATCAGCTGGGTGACGGTCTTCTCTAACAG
AGTACGCGGGGCCCTTTTCATCTACCTGCTCTTCTACTCCGAGTGCCCTTCATCTATGGCCACAATA
TGACTTTACGTCCAGTCCGCATACAGTGGTGCACCTCGCCTGCATCTGCTACTATTCCACTACATCAAG
CGCTGCTGGAGACGCTTTCGTGCACCGCTTCTCCCATGGCACTATGCCTTTGGCAACATCTTCAAGA
ACTGCACCTACTACTGGGGCTTCGCCCGGTGGATGGCCTATTACATCAATCACCTCTCTACACTCCCC
TACCTACGGAGCTCAGCAGGTGAACTGGCGCTCGCCATCTTTGTGATCTGCCAGCTCGGCAACTTCTCC
ATCCACATGGCCCTGCGGGACCTGCGGCCCGCTGGGTCCAAGACGCGGAAGATCCCATACCCACCAAGA
ACCCCTTACGTGGCTCTTCTGCTGGTGTCTGCCCAACTACACCTACGAGGTGGGGTCTGGATCGG
TTTCGCCATCATGACGAGTGTCTCCAGTGGCCCTGTTCTCCCTGGTGGGCTTACCCAGATGACCATC
TGGGCCAAGGGCAAGCACCGCAGCTACCTGAAGGAGTTCGGGACTACCCGCCCTGCGCATGCCATCA
TCCCCTTCTGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202503 protein sequence
Red=Cloning site Green=Tags(s)

MKHYEVEILDAKTREKLCFLDKVEPHATIAEIKNLFTKTHPQWYPARQSLRLDPKGKSLKDEDVLQKLPV
 GTTATLYFRDLGAQISWTVVFLTEYAGPLFIYLLFYFRVPIYGHKYDFSSRHTVVHLACICHSFYIK
 RLLETLFVHRFSHGTMPLRNIFKNCTYYWGFAAWMAYYINHPLYTPPTYGAQQVKLALAI FVICQLGNFS
 IHMALRDLRPAGSKTRKIPYPTKNPFTWLFLLVSCPNTYEVGSWIGFAIMTQCLPVALFSLVGFQMTI
 WAKGKHSYLFKFRDYPPLRMPIIPFLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6194_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_138501

ORF Size: 924 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_138501.6](#)

RefSeq Size: 1180 bp

RefSeq ORF: 927 bp

Locus ID: 9524

UniProt ID: [Q9NZ01](#)

Cytogenetics: 19p13.12

Domains: Steroid_dh

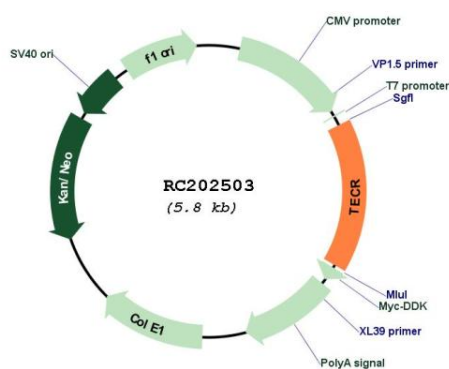
Protein Families: Transmembrane

Protein Pathways: Biosynthesis of unsaturated fatty acids

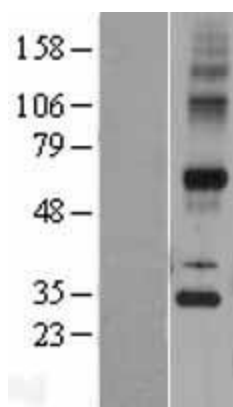
MW: 36 kDa

Gene Summary: This gene encodes a multi-pass membrane protein that resides in the endoplasmic reticulum, and belongs to the steroid 5-alpha reductase family. The elongation of microsomal long and very long chain fatty acid consists of 4 sequential reactions. This protein catalyzes the final step, reducing trans-2,3-enoyl-CoA to saturated acyl-CoA. Alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Apr 2011]

Product images:



Circular map for RC202503



Western blot validation of overexpression lysate (Cat# [LY403358]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202503 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).