

Product datasheet for **RG226746**

Carboxylesterase 7 (CES5A) (NM_001143685) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxylesterase 7 (CES5A) (NM_001143685) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CES5A
Synonyms:	CAUXIN; CES4C1; CES5; CES7; HEL126
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG226746 representing NM_001143685
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTGGGAATTGGGTGCACCCAGGCCAGATCCTAATTTGGGCTATCTGGGTCCTTGACGCCCCACCA
 AAGGGCCTTCTGCTGAAGGGCCACAGAGAACACCAGGCTGGGATGGATTCAGGGCAAGCAAGTCACTGT
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 GTCAGAAGACTGCCTCTACCTGAACATCTATGCGCCTGCCACGCCGATACAGGCTCCAAGCTCCCCGTC
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 TGACTGAGCAGTACCTCCAGCTGGACTTGAACATGAGCCTCGGACAGAGACTCAAAGAACCAGCGGGTGA
 TTTTGGACCAGCACCATCCCCCTGATCTGTCTGCTCCGACATGCTCCACAGTCTCTTCTTCTTA
 ACTTCTCTCTCTCTCCAGCCTTCTTTTCTTTTGTGCTCCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG226746 representing NM_001143685
 Red=Cloning site Green=Tags(s)

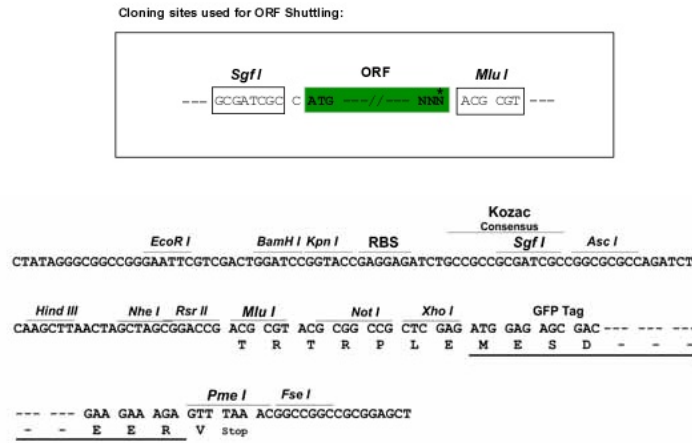
MSGNWHVHPQILWAIWVLAAPTKGPSAEGPQRNTRLGWIQKQVTVLGSVPVNVFLGVPFAAPPLGSL
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 EFFGGDPSSVTIFGESAGAISVSSLILSPMAKGLFHKAIMESGVAIIPYLEAHDYEKSEDLQVVAHFVCGN
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 RYHRDAGAPVYFYEFRHRPQCFEDTKPAFVKADHADEVRFVFGGAFLKGDIVMFEGATEEEKLLSRKMMK
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TRTRPLE – GFP Tag – V

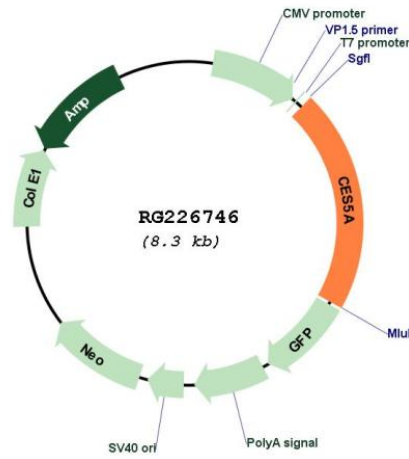
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001143685

ORF Size: 1725 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:	<ol style="list-style-type: none">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_001143685.1 , NP_001137157.1
RefSeq Size:	2285 bp
RefSeq ORF:	1728 bp
Locus ID:	221223
UniProt ID:	Q6NT32
Cytogenetics:	16q12.2
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - other enzymes
Gene Summary:	This gene encodes a member of the carboxylesterase large family. The family members are responsible for the hydrolysis or transesterification of various xenobiotics, such as cocaine and heroin, and endogenous substrates with ester, thioester, or amide bonds. They also participate in fatty acyl and cholesterol ester metabolism, and may play a role in the blood-brain barrier system. This gene, also called CES5, is predominantly expressed in peripheral tissues, including brain, kidney, lung and testis. It encodes a secreted enzyme. Because of high levels in the urine of male domestic cats, this enzyme is also called cauxin (carboxylesterase-like urinary excreted protein). The enzyme functions in regulating the production of a pheromone precursor and may contribute to lipid and cholesterol transfer processes within male reproductive fluids. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]