

Product datasheet for **RC226746**

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:	Myc-DDK
Symbol:	Carboxylesterase 7
Synonyms:	CAUXIN; CES4C1; CES5; CES7; HEL126
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC226746 representing NM_001143685
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGTGGGAATTGGGTGCACCCAGGCCAGATCCTAATTTGGGCTATCTGGGTCCTTGACGCCCCACCA
 AAGGGCCTTCTGCTGAAGGGCCACAGAGAACACCAGGCTGGGATGGATTCAGGGCAAGCAAGTCACTGT
 GCTGGGAAGCCCTGTGCCTGTGAACGTGTTCTCGGAGTCCCCTTTGCTGCTCCCCGCTGGGATCCCTG
 CGATTTACGAACCCGAGCCTGCATCGCCCTGGGATAACTTGCAGAGAAGCCACCTCTACCTAATTTGT
 GCCTCCAGAACTCAGAGTGGCTGCTCTTAGATCAACACATGCTCAAGGTGCATTACCCGAAATTCGGAGT
 GTCAGAAGACTGCCTCTACCTGAACATCTATGCGCCTGCCACGCCGATACAGGCTCCAAGCTCCCCGTC
 TTGGTGTGGTCCCAGGAGGTGCCTTCAAGACTGGCTCAGCTCCATCTTTGATGGGTCCGCCCTGGCTG
 CCTATGAGGACGTGCTGGTTGTGGTCGTCAGTACCGGCTAGGAATATTTGGTTTCTTCACCACATGGGA
 TCAGCATGCTCCGGGAACTGGGCCTTCAAGACCAGGTGGCTGCTCTGTCTGGGTCCAGAAGAATC
 GAGTTCTTCGGTGGGACCCAGCTCTGTGACCATCTTTGGCGAGTCCGCGGGAGCCATAAGTGTTCCTA
 GTCTTATACTGTCTCCCATGGCCAAAGGCTTATCCACAAGCCATCATGGAGAGTGGGGTGGCCATCAT
 CCCTTACCTGGAGGCCATGATTATGAGAAGAGTGAAGACTGCAGGTGGTTGCACATTTCTGTGGTAAAC
 AATGCGTCAGACTCTGAGGCCCTGCTGAGGTGCCTGAGGACAAAACCCCTCCAAGGAGTGCCTGACCTCA
 GCCAGAAAACAAAGTCTTCACTCGAGTGGTTGATGGTGTCTTTCTTCTAATGAGCCTCTAGATCTATT
 GTCTCAGAAAGCATTTAAAGCAATTCCTCCATCATCGGAGTCAATAACCAGAGTGTGGCTTCTGCTG
 CCTATGAAGGAGGCTCCTGAGATCCTCAGTGGCTCCAACAAGTCCCTTCCCTCCATCGATACAAAACA
 TCCTGCACATCCCGCCTCAGTATTTGCACCTTGTGGCTAATGAATACTCCATGACAAGCACTCCCTGAC
 TGAATCCGAGACAGTCTTCTGGACTTGGTGGAGATGTGTTCTTTGTGGTCCCTGCACTGATCACAGCT
 CGATATCACAGAGATGCTGGTGCACCTGTCTACTTCTATGAGTTTCGGCACCGGCCCTCAGTGCTTTGAAG
 ACACGAAGCCGGCTTTTGTCAAAGCCGACCACGCTGATGAAGTCCGCTTTGTGTTCCGGTGGTGCCTTCT
 GAAGGGGGACATTGTTATGTTTGAAGGACCCAGGAGGAGAGAAGTACTGAGCCGGAAGATGATGAAA
 TACTGGGTACCTTTGCTCGAACCGGGAATCCTAATGGGAACGACCTGTCTCTGTGGCCAGCTTATAATC
 TGACTGAGCAGTACCTCCAGCTGGACTGAACATGAGCCTCGGACAGAGACTCAAAGAACCAGCGGGTGA
 TTTTGGACCAGCACCATCCCCCTGATCTGTCTGCTCCGACATGCTCCACAGTCTCTTTCTTCTTA
 ACTTTCCTCTCTCTCCTCCAGCCTTCTTTTCTTTTGTGCTCCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC226746 representing NM_001143685
 Red=Cloning site Green=Tags(s)

MSGNWWHPGQILIWAIWVLAAPTKGPSAEGPQRNTRLGWIQKQVTVLGSPPVNVFLGVPFAAPPLGSL
 RFTNPQPASPWNLREATSYPNLCLQNSEWLLLDQHMLKVHYPKFVSEDCLYLNIYAPAHADTGSKLPV
 LVWFPGGAFKTSASIFDGSALAAAYEDLVVVVQYRLGIFGFFTTWDQHAPGNWAFKQVAALSWVQKNI
 EFFGGDPSSVTFGESAGAISVSSLILSPMAKGLFHKAIMESGVAIIPYLEAHDYEKSEDLQVVAHFVCGN
 NASDSEALLRCLRTKPSKELLTSLQKTKSFTRVVDGAFVFPNEPLDLLSQKAFKAIPSIIGVNNHECGFLL
 PMKEAPEILSGSNKSLALHLIQNILHIPPQYLHLVANEYFHDKHSLEIRDSLLDLLGDVFFVVPALITA
 RYHRDAGAPVYFYFRHRPQCFEDTKPAFVKADHADEVRFVFGGAFKGDIVMFEGATEEEKLLSRKMMK
 YWATFARTGNPNNDLSLWPAYNLTEQYLQLDLNMSLGQRLKEPRVDFWTSTIPLILSASDMLHSPSSSL
 TFLSLLQPFFFCAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


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:

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 ORF: 1728 bp

Locus ID: 221223

UniProt ID: [Q6NT32](#)

Cytogenetics: 16q12.2

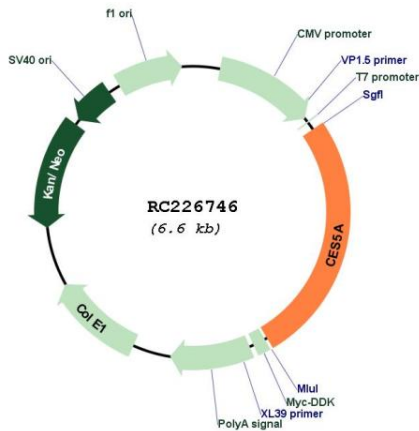
Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - other enzymes

MW: 63.7 kDa

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]

Product images:



Circular map for RC226746