

Product datasheet for **RC210205**

Carboxylesterase 7 (CES5A) (NM_145024) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxylesterase 7 (CES5A) (NM_145024) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC210205 representing NM_145024
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAGTGGGAATTGGGTGACCCAGGCCAGATCCTAATTTGGGCTATCTGGGTCCTTGACGCCCCACCA
 AAGGGCCTTCTGCTGAAGGGCCACAGAGAACACCAGGCTGGGATGGATTCAGGGCAAGCAAGTCACTGT
 GCTGGGAAGCCCTGTGCCTGTGAACGTGTTCTCGGAGTCCCCTTTGCTGCTCCCCCGCTGGGATCCCTG
 CGATTTACGAACCCGAGCCTGCATCGCCCTGGGATAACTTGCAGAGAAGCCACCTCTACCTAATTTGT
 GCCTCCAGAACTCAGAGTGGTCTCTTAGATCAACACATGCTCAAGGTGCATTACCCGAAATTCGGAGT
 GTCAGAAGACTGCCTCTACCTGAACATCTATGCGCCTGCCACGCGGATACAGGCTCCAAGTCCCGCTC
 TTGGTGTGGTTCCAGGAGGTGCCTTCAAGACTGGCTCAGCCTCCATCTTTGATGGGTCCGCCCTGGCTG
 CCTATGAGGACGTGCTGGTTGTGGTCTCCAGTACCGGCTAGGAATATTTGGTTTCTTCACCACATGGGA
 TCAGCATGCTCCGGGAACTGGGCCTTCAAGACCAGGTGGCTGCTCTGTCTGGGTCCAGAAGAATCATC
 GAGTTCTTCGGTGGGACCCAGCTCTGTGACCATCTTTGGCGAGTCCGCGGGAGCCATAAGTGTTCCTA
 GTCTTATACTGTCTCCCATGGCCAAAGGCTTATCCACAAGCCATCATGGAGAGTGGGGTGGCCATCAT
 CCCTTACCTGGAGGCCATGATTATGAGAAGAGTGAAGGACCTGCAGGTGGTTGCACATTTCTGTGGTAAC
 AATGCGTCAGACTCTGAGGCCCTGCTGAGGTGCCTGAGGACAAAACCTCCAAGGAGTGCCTGACCCCTCA
 GCCAGAAAACAAAGTCTTCACTCGAGTGGTTGATGGTGTCTTTCTTCTAATGAGCCTCTAGATCTATT
 GTCTCAGAAAGCATTTAAAGCAATTCCTTCCATCATCGGAGTCAATAACCAGAGTGTGGCTTCTGCTG
 CCTATGAAGGAGGCTCCTGAGATCCTCAGTGGCTCCAACAAGTCCCTGCCCTCCATCTGATACAAAACA
 TCCTGCACATCCCGCCTCAGTATTTGCACCTTGTGGCTAATGAATACTCCATGACAAGCAGTCCCTGAC
 TGAATCCGAGACAGTCTTCTGGACTTGGTGGAGATGTGTTCTTTGTGGTCCCTGCACTGATCACAGCT
 CGATATCACAGAGAAGGACCCAGGAGGAGGAGAAGTACTGAGCCGGAAGATGATGAAATACTGGGCTA
 CCTTTGCTCGAACCGGAATCCTAATGGGAACGACCTGTCTCTGTGGCCAGCTTATAATCTGACTGAGCA
 GTACCTCCAGCTGGACTTGAACATGAGCCTCGGACAGAGACTCAAAGAACCAGGCGGGTGGATTTTGGACC
 AGCACCATCCCCCTGATCTGTCTGCCTCCGACATGCTCCACAGTCTCTTTCTTCTTAACCTTCTCTCT
 CTCTCTCCAGCCTTTCTTTTCTTTTGTGCTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210205 representing NM_145024
 Red=Cloning site Green=Tags(s)

MSGNWVHPGQILIWAIWVLAAPTKGPSAEGPQRNTRLGWIQKQVTVLGSVPVNVFLGVPFAAPPLGSL
 RFTNPQPASPWDNLREATSYPNLCQNSEWLLLDQHMLKVHYPKFVSEDCLYLNIYAPAHADTGSKLPV
 LVWFPGGAFKTSASIFDGSALAAAYEDLVVVVQYRLGIFGFFTTWDQHAPGNWAFKQVAALSWVQKNI
 EFFGGDPSSVTIFGESAGAISVSSLILSPMAKGLFHKAIMESGVAIIPYLEAHDYEKSEDLQVVAHFVCGN
 NASDSEALLRCLRTKPSKELLTSLQKTKSFTRVVDGAFPPNEPLDLLSQKAFKAIPSIIGVNNHECGFLL
 PMKEAPEILSGSNKSLALHLIQNILHIPPQYLHLVANEYFHDKHSLTEIRDSLLDLLGDVFFVVPALITA
 RYHREGATEEEKLLSRKMMKYWATFARTGNPNNDLSLWPAYNLTEQYLQLDLNMSLGQRLKEPRVDFWT
 STIPLILSASDMLHSPLSSLTFLSLLQPFFFFCAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3007_c04.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_145024

ORF Size: 1575 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_145024.3](#)

RefSeq Size: 1962 bp

RefSeq ORF: 1578 bp

Locus ID: 221223

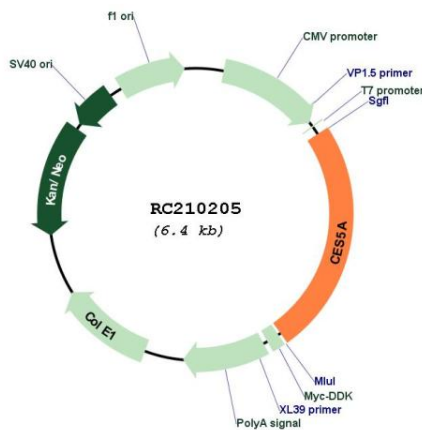
UniProt ID: [Q6NT32](#)

Cytogenetics: 16q12.2

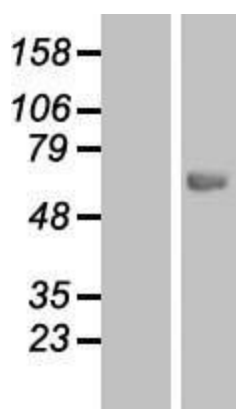
Domains: COesterase
Protein Families: Druggable Genome
Protein Pathways: Drug metabolism - other enzymes
MW: 58 kDa

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]

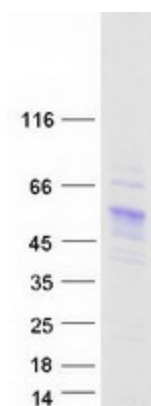
Product images:



Circular map for RC210205



Western blot validation of overexpression lysate (Cat# [LY408085]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210205 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CES5A protein (Cat# [TP310205]). The protein was produced from HEK293T cells transfected with CES5A cDNA clone (Cat# RC210205) using MegaTran 2.0 (Cat# [TT210002]).