

Product datasheet for RC213299

STAR (NM_001007243) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STAR (NM_001007243) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	STAR
Synonyms:	cholesterol trafficker; mitochondrial steroid acute regulatory protein; StAR-related lipid transfer (START) domain containing 1; STARD1; START domain containing 1; steroid acute regulatory protein; steroidogenic acute regula; steroidogenic acute regulator
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213299 representing NM_001007243 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGATCGCC

ATGCTGCTAGCGACATTCAGCTGTGCGCTGGGAGCTCCTACAGACACATGCGCAACATGAAGGGGCTGA
GGCAACAGGCTGTGATGGCCATCAGCCAGGAGCTGAACCGGAGGGCCCTGGGGGGCCCCACCCCTAGCAC
GTGGATTAACCAGTTTCGGCGGCGGAGCTCTACTCGTTCTCGGCTGGAAGAGACTCTTACAGTGAC
CAGGAGCTGGCCTATCTCCAGCAGGGGGAGGAGCCATGCAGAAGGCCTTGGGCATCCTTAGCAACCAAG
AGGGCTGGAAGAAGGAGAGTCAGCAGGACAATGGGGACAAAGTGATGAGTAAAGTGGTCCCAGATGTGGG
CAAGGTGTTCCGGCTGGAGGTCGTGGTGGACCAGCCATGGAGAGGCTCTATGAAGAGCTCGTGGAGCGC
ATGGAAGCAATGGGGAGTGAACCCCAATGTCAAGGAGATCAAGGTCTGCAGAAGATCGGGGGCCCC
GTGACTTTGTGAGCGTGCCTGTGCCAAGCGCCGAGGCTCCACCTGTGTGCTGGCTGGCCACAGA
CTTCGGGAACATGCCTGAGCAGAAGGTGTCATCAGGGCGGAGCACGGTCCCCTTGCATGTTGCTTCAC
CGTTGGCTGGAAGTCCCTCTAAGACCAAACCTACGTGGCTACTCAGCATCGACCTCAAGGGGTGGCTGC
CCAAGAGCATCATCAACCAGTCTGTCCAGACCCAGGTGGATTTTGCCAACCACCTGGCAAGCGCCT
GGAGTCCCACCCTGCCTCTGAAGCCAGGTGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC213299 representing NM_001007243
Red=Cloning site Green=Tags(s)

MLLATFKLCAGSSYRHRNMKGLRQQAVMAISQELNRRALGGPTPSTWINQVRRRSSLLGSRL EETLYSD
 QELAYLQQGEEAMQKALGILSNQEGWKKE SQQDNGDKVMSKVVPDVGKVFRL E VVVDQPMERLYEELVER
 MEAMGEWNPNVKEIKVLQKIGGPRDFVSVRCARRRGSTCVLAGMATDFGNMPEQKGVIRA EHGPTCMVLH
 PLAGSPSKTKLTWLLSIDLKGWLPKSIINQVLSQTQVDFANHLRKRLESH PASEARC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8048_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001007243

ORF Size: 801 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_001007243.1](#), [NP_001007244.1](#)

RefSeq Size: 2641 bp

RefSeq ORF: 803 bp

Locus ID: 6770

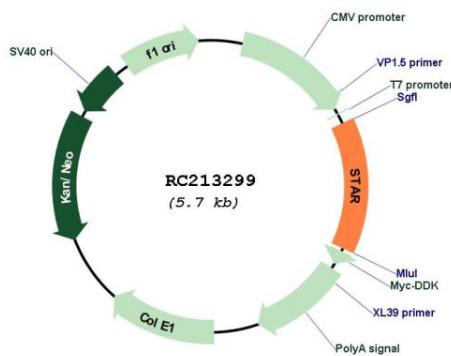
Cytogenetics: 8p11.23

Protein Families: Druggable Genome

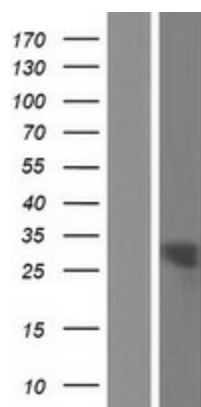
MW: 29.9 kDa

Gene Summary: The protein encoded by this gene plays a key role in the acute regulation of steroid hormone synthesis by enhancing the conversion of cholesterol into pregnenolone. This protein permits the cleavage of cholesterol into pregnenolone by mediating the transport of cholesterol from the outer mitochondrial membrane to the inner mitochondrial membrane. Mutations in this gene are a cause of congenital lipid adrenal hyperplasia (LAH), also called lipid CAH. A pseudogene of this gene is located on chromosome 13. [provided by RefSeq, Jul 2008]

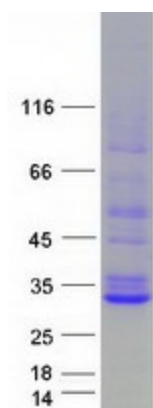
Product images:



Circular map for RC213299



Western blot validation of overexpression lysate (Cat# [LY423465]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213299 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STAR protein (Cat# [TP313299]). The protein was produced from HEK293T cells transfected with STAR cDNA clone (Cat# RC213299) using MegaTran 2.0 (Cat# [TT210002]).