

Product datasheet for **RC215380**

Asparagine synthetase (ASNS) (NM_133436) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Asparagine synthetase (ASNS) (NM_133436) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Asparagine synthetase
Synonyms:	ASNSD; TS11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC215380 representing NM_133436
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGTGGCATTGGGCGCTGTTTGGCAGTGATGATTGCCTTTCTGTTTCAGTGTCTGAGTGCATGAAGA
 TTGCACACAGAGGTCCAGATGCATTCCGTTTTGAGAATGTCAATGGATACACCAACTGCTGCTTTGGATT
 TCACCGGTTGGCGGTAGTTGACCCGCTGTTTGGAAATGCAGCCAATTCGAGTGAAGAAATATCCGATTTG
 TGGCTCTGTTACAATGGTAAATCTACAACCATAAGAAGATGCAACAGCATTGAAATTTGAATACCAGA
 CCAAAGTGGATGGTGAATAATCCTTCTCTTTATGACAAAGGAGGAATTGAGCAAACAATTTGTATGTT
 GGATGGTGTGTTGCATTTGTTTTACTGGATACTGCCAATAAGAAAGTGTCTGGGTAGAGATACATAT
 GGAGTCAGACCTTTGTTAAAGCAATGACAGAAGATGGATTTTTGGCTGTATGTTCAGAAGCTAAAGGTC
 TTGTTACATTGAAGCACTCCGCGACTCCCTTTTTAAAAGTGGAGCCTTTCTTCTGGACACTATGAAGT
 TTTGGATTTAAAGCCAAATGGCAAAGTTCATCCGTGGAATGGTTAAATATCATCACTGTCGGGATGAA
 CCCTGCACGCCCTCTATGACAATGTGGAGAACTCTTTCCAGGTTTTGAGATAGAAACTGTGAAGAACA
 ACCTCAGGATCCTTTTTAATAATGCTGTAAGAAACGTTTGTATGACAGACAGAAGGATTGGCTGCCTTTT
 ATCAGGGGGCTTGGACTCCAGCTTGGTTGCTGCCACTCTGTTGAAGCAGCTGAAAGAAGCCCAAGTACAG
 TATCCTCTCCAGACATTTGCAATTGGCATGGAAGACAGCCCCGATTTACTGGCTGCTAGAAAGGTGGCAG
 ATCATATTGGAAGTGAACATTATGAAGTCTTTTTAACTCTGAGGAAGGCATTACGGCTCTGGATGAAGT
 CATATTTTCTTGGAACTTATGACATTACAACAGTTCGTGCTTCAGTAGGTATGATTTAATTTCCAAG
 TATATTCGGAAGAACACAGATAGCGTGGTATCTTCTCTGGAGAAGGATCAGATGAACTACGCAGGGTT
 ACATATATTTTACAAGGCTCTTCTCTGAAAAAGCCGAGGAGAGAGTGAAGGCTTCTGAGGGAAC
 CTATTTGTTTGTGTTCTCCGCGCAGATCGAACTACTGCTGCCCATGGTCTTGAAGTGAAGTCCCATTT
 CTAGATCATCGATTTTCTTCTTACTTGTCTCTGCCACCAGAAATGAGAATTCAAAGAATGGGATAG
 AAAACATCTCCTGAGAGAGACGTTTGGAGATTCCAATCTGATACCCAAAGAGATTCTCTGGCGACCAAA
 AGAAGCCTTCAGTGATGGAATAACTTCAGTTAAGAATTCCTGGTTTAAGATTTTACAGGAATACGTTGAA
 CATCAGGTTGATGATGCAATGATGGCAAATGCAGCCCAGAAATTTCCCTTCAATACTCTAAAACCAAG
 AAGGATATTACTACCGTCAAGTCTTTGAACGCCATTACCCAGGCCGGCTGACTGGCTGAGCCATTACTG
 GATGCCAAAGTGATCAATGCCACTGACCCTTCTGCCCGCAGCTGACCCACTACAAGTCAGCTGTCAA
 GCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215380 representing NM_133436
 Red=Cloning site Green=Tags(s)

MCGIWFVSGDDCLSVQCLSAMKIAHRGPDARFENVNGYTNCCFGFHLAVVDPLFGMQPIRVKKYPYL
 WLCYNGE IYNHKKMQHF EYQTKVDGEIILHLYDKGGIEQICMLDGVFAFVLLDTANKKVF LGRD
 YGVRPLFKAMTEDGFLAVCSEAKGLVTLKHSATPFLKVEPFLPGHYEVLDLKPNGKVASVEMVKYHHC
 RDEPLHALYDNVEKLPFGFEIETVKNLRLILFNNAVKKRLMTRRIGCLL SGLDSSLVAATLLKQLKEA
 QVQYPLQTF AIGMEDSPDLLAARKVADHIGSEHYEVLFNSEEGIQALDEVIF SLETYDITTVRASV
 GMYLISKYIRKNTDSVVIFSGEGSDEL TQYIYFHKAPSPEKAEESERLLRELYLFDVLRADRTTAA
 HGLELRVPLDHRFSSYYLSLPPEMRIPKNGIEKHLRET FDSNLI PKEILWRPKEAFSDGITSVKN
 SWFKILQEYVEHQVDDAMMANAAQKFPFNTPKTKEGYRQVFERHYPRADWLSHYWMPKWINATDPS
 ARTLTHYKSAVKA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6122_c06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_133436

ORF Size: 1683 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

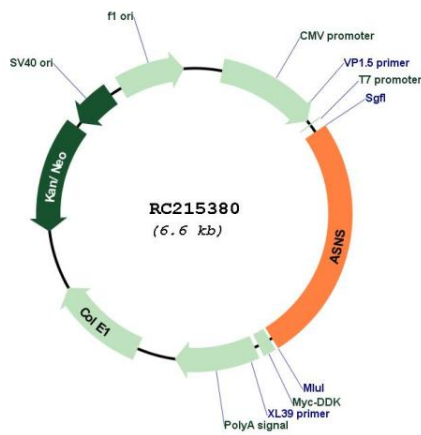
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

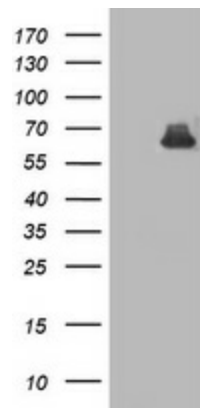
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_133436.1 , NP_597680.1
RefSeq Size:	2348 bp
RefSeq ORF:	1686 bp
Locus ID:	440
UniProt ID:	P08243
Cytogenetics:	7q21.3
Domains:	GATase_2, Asn_synthase
Protein Families:	Druggable Genome
Protein Pathways:	Alanine, aspartate and glutamate metabolism, Metabolic pathways, Nitrogen metabolism
MW:	64.2 kDa
Gene Summary:	The protein encoded by this gene is involved in the synthesis of asparagine. This gene complements a mutation in the temperature-sensitive hamster mutant ts11, which blocks progression through the G1 phase of the cell cycle at nonpermissive temperature. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, May 2010]

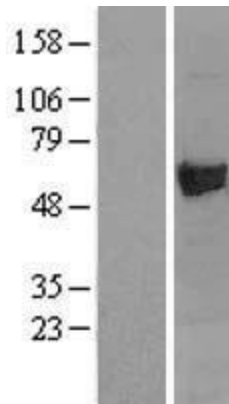
Product images:



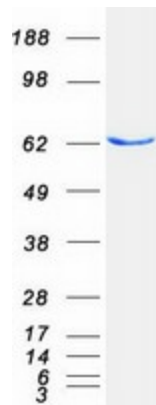
Circular map for RC215380



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ASNS (Cat# RC215380, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ASNS (Cat# [TA503444]). Positive lysates [LY403336] (100ug) and [LC403336] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403336]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215380 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ASNS protein (Cat# [TP315380]). The protein was produced from HEK293T cells transfected with ASNS cDNA clone (Cat# RC215380) using MegaTran 2.0 (Cat# [TT210002]).