

Product datasheet for **RC225443**

ASPA (NM_001128085) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ASPA (NM_001128085) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ASPA
Synonyms:	ACY2; ASP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225443 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGACTTCTTGTCACATTGCTGAAGAACATATACAAAAGGTTGCTATCTTTGGAGGAACCCATGGGAATG
AGCTAACCGGAGTATTTCTGGTTAAGCATTGGCTAGAGAATGGCGCTGAGATTCAGAGAACAGGGCTGGA
GGTAAAACCATTTACTAATCCAGAGCAGTGAAGAAGTGTACCAGATATATTGACTGTGACCTGAAT
CGCATTTTTGACCTTGAAAATCTTGGCAAAAAATGTCAGAAGATTTGCCATATGAAGTGAAGGGCTC
AAGAAATAAATCATTTATTTGGTCCAAAAGACAGTGAAGATTCCTATGACATTATTTTTGACCTCACAA
CACCACCTCTAACATGGGGTGCCTCTTATTCTTGAGGATTCAGGAATAACTTTTTAATTCAGATGTTT
CATTACATTAAGACTTCTCTGGCTCCACTACCCTGCTACGTTTATCTGATTGAGCATCCTCCCTCAAAT
ATGCGACCACTCGTTCCATAGCCAAGTATCCTGTGGGTATAGAAGTTGGTCTCAGCCTCAAGGGTTCT
GAGAGCTGATATCTTGGATCAAAATGAGAAAAATGATTAACATGCTCTTGATTTTATACATCATTCAAT
GAAGGAAAAGAATTTCTCCCTGCGCCATTGAGGTCTATAAAATTATAGAGAAAGTTGATTACCCCGGG
ATGAAAATGGAGAAATGCTGCTATCATCCATCCTAATCTGCAGGATCAAGACTGGAACCACTGCATCC
TGGGGATCCCATGTTTTAACTTTGATGGGAAGACGATCCCACTGGGCGGAGACTGTACCGTGTACCCC
GTGTTTGTGAATGAGCCGCATATTACGAAAAGAAGAAGCTTTTGCAAAGACAATAAACTAACGCTCA
ATGCAAAAAGTATTCGCTGCTGTTTACAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC225443 protein sequence
Red=Cloning site Green=Tags(s)

MTSCHIAEEHIQKVAIFGGTHGNELTGVFLVKHWLENGAEIQRGTGLEVKPFITNPRAVKKCTRYIDCDLN
 RIFDLENLGGKMSEDLPYEVRAQEIINHLFGPKDSEDSYDIIIFDLHNNTSNMGCTLILEDNRNLIQMF
 HYIKTSLAPLPCYVYLIEHPSLKYATTRSIKYPVGIIEVGPQPGVLRADILDQMRKMIKHALDFIHHFN
 EGKEFPPCAIEVYKIIIEKVDYPRDENGIEAAIIHPNLQDQDWKPLHPGDPMFLTLDGKTIPLGGDCTVYP
 VFNAAAYYEKKEAFKTTKLTNLAKSIRCCLH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6329_a09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001128085

ORF Size: 939 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_001128085.1](#), [NP_001121557.1](#)

RefSeq Size: 1368 bp

RefSeq ORF: 942 bp

Locus ID: 443

UniProt ID: [P45381](#)

Cytogenetics: 17p13.2

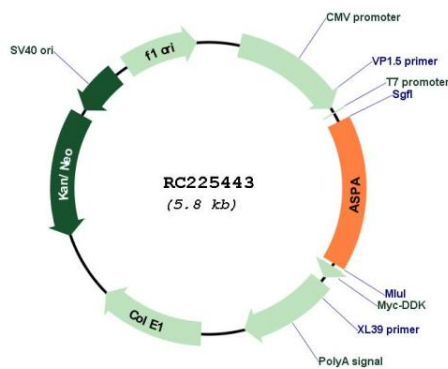
Protein Families: Druggable Genome

Protein Pathways: Alanine, aspartate and glutamate metabolism, Histidine metabolism

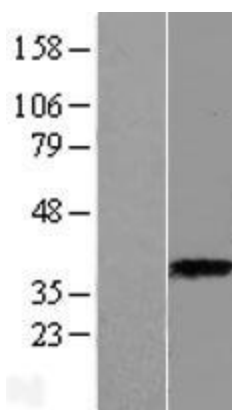
MW: 35.7 kDa

Gene Summary: This gene encodes an enzyme that catalyzes the conversion of N-acetyl_L-aspartic acid (NAA) to aspartate and acetate. NAA is abundant in the brain where hydrolysis by aspartoacylase is thought to help maintain white matter. This protein is an NAA scavenger in other tissues. Mutations in this gene cause Canavan disease. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2008]

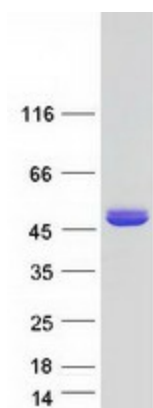
Product images:



Circular map for RC225443



Western blot validation of overexpression lysate (Cat# [LY426889]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225443 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ASPA protein (Cat# [TP325443]). The protein was produced from HEK293T cells transfected with ASPA cDNA clone (Cat# RC225443) using MegaTran 2.0 (Cat# [TT210002]).