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Product datasheet for RC206564

ASPA (NM_000049) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ASPA (NM_000049) 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:

>RC206564 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTTCTTGTCACATTGCTGAAGAACATATACAAAAGGTTGCTATCTTTGGAGGAACCCATGGGAATG
AGCTAACCGGAGTATTTCTGGTTAAGCATTGGCTAGAGAATGGCGCTGAGATTCAGAGAACAGGGCTGGA
GGTAAAACCATTTATTACTAACCCCAGAGCAGTGAAGAAGTGTACCAGATATATTGACTGTGACCTGAAT
CGCATTTTTGACCTTGAAAATCTTGGCAAAAAAATGTCAGAAGATTTGCCATATGAAGTGAGAAGGGCTC
AAGAAATAAATCATTTATTTGGTCCAAAAGACAGTGAAGATTCCTATGACATTATTTTTGACCTTCACAA
CACCACCTCTAACATGGGGTGCACTCTTATTCTTGAGGATTCCAGGAATAACTTTTTAATTCAGATGTTT
CATTACATTAAGACTTCTCTGGCTCCACTACCCTGCTACGTTTATCTGATTGAGCATCCTTCCCTCAAAT
ATGCGACCACTCGTTCCATAGCCAAGTATCCTGTGGGTATAGAAGTTGGTCCTCAGCCTCAAGGGGTTCT
GAGAGCTGATATCTTGGATCAAATGAGAAAAATGATTAAACATGCTCTTGATTTTATACATCATTTCAAT
GAAGGAAAAGAATTTCCTCCCTGCGCCATTGAGGTCTATAAAATTATAGAGAAAGTTGATTACCCCCGGG
ATGAAAATGGAGAAATTGCTGCTATCATCCATCCTAATCTGCAGGATCAAGACTGGAAACCACTGCATCC
TGGGGATCCCATGTTTTTAACTCTTGATGGGAAGACGATCCCACTGGGCGGAGACTGTACCGTGTACCCC
GTGTTTGTGAATGAGGCCGCATATTACGAAAAGAAAGAAGCTTTTGCAAAGACAACTAAACTAACGCTCA
ATGCAAAAAGTATTCGCTGCTGTTTACAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC206564 protein sequence
Red=Cloning site Green=Tags(s)

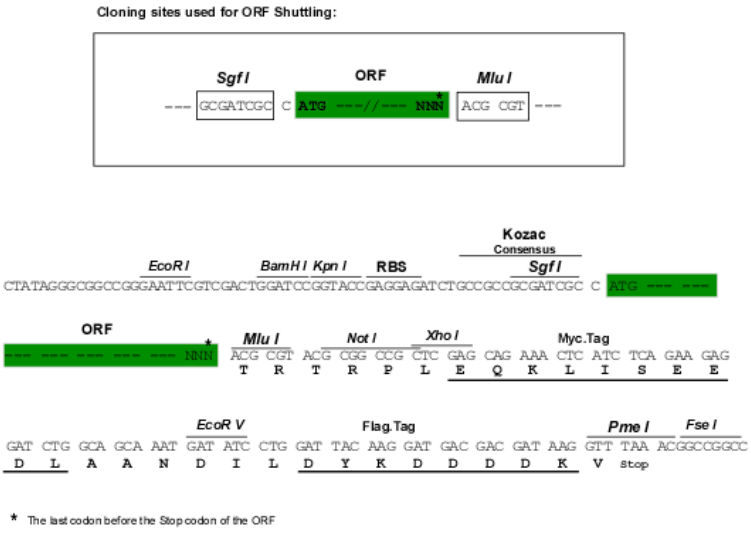
MTSCHIAEEHIQKVAIFGGTHGNELTGVFLVKHWLENGAEIQRTGLEVKPFITNPRAVKKCTRYIDCDLN
RIFDLENLGKKMSEDLPYEVRRAQEINHLFGPKDSEDSYDIIFDLHNTTSNMGCTLILEDSRNNFLIQMF
HYIKTSLAPLPCYVYLIEHPSLKYATTRSIAKYPVGIEVGPQPQGVLRADILDQMRKMIKHALDFIHHFN
EGKEFPPCAIEVYKIIEKVDYPRDENGEIAAIIHPNLQDQDWKPLHPGDPMFLTLDGKTIPLGGDCTVYP
VFVNEAAYYEKKEAFAKTTKLTLNAKSIRCCLH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000049

ORF Size: 939 bp

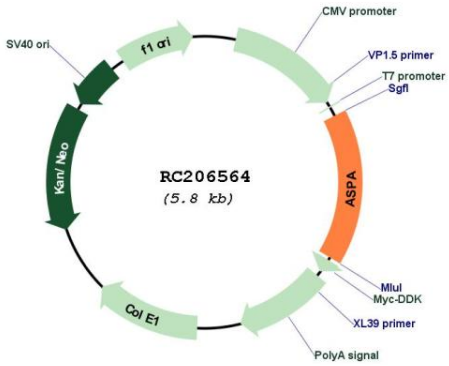
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

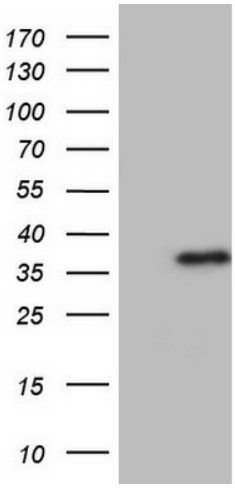
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000049.4
RefSeq Size:	1435 bp
RefSeq ORF:	942 bp
Locus ID:	443
UniProt ID:	P45381
Cytogenetics:	17p13.2
Domains:	Aste_AspA
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]

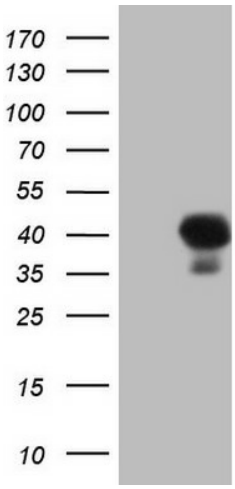
Product images:



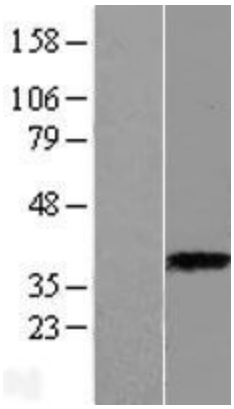
Circular map for RC206564



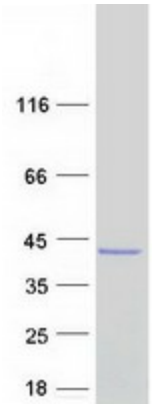
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ASPA (RC206564, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ASPA ([TA805223]). Positive lysates [LY424954] (100ug) and [LC424954] (20ug) can be purchased separately from OriGene.



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ASPA (Cat# RC206564, 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-ASPA (Cat# [TA805304])(1:2000). Positive lysates [LY424954] (100ug) and [LC424954] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY426889]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected 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# [TP306564]). The protein was produced from HEK293T cells transfected with ASPA cDNA clone (Cat# RC206564) using MegaTran 2.0 (Cat# [TT210002]).