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Product datasheet for RC214604

ARSB (NM_000046) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARSB (NM_000046) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARSB
Synonyms:	ASB; G4S; MPS6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214604 representing NM_000046
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTCCGCGCGGCGCGGCGAGCTTGCCCCGAGGCCCCGGACCTCGGCGGCTGCTCCTCCCCGTCGTCC
TCCCGCTGCTGCTGCTGCTGTTGTTGGCGCCGCCGGGCTCGGGCGCCGGGGCCAGCCGGCCGCCCCACCT
GGTCTTCTTGCTGGCAGACGACCTAGGCTGGAACGACGTCGGCTTCCACGGCTCCCGCATCCGCACGCCG
CACCTGGACGCGCTGGCGGCCGGCGGGGTGCTCCTGGACAACTACTACACGCAGCCGCTGTGCACGCCGT
CGCGGAGCCAGCTGCTCACTGGCCGCTACCAGATCCGTACAGGTTTACAGCACCAAATAATCTGGCCCTG
TCAGCCCAGCTGTGTTCCTCTGGATGAAAAACTCCTGCCCCAGCTCCTAAAAGAAGCAGGTTATACTACC
CATATGGTCGGAAAATGGCACCTGGGAATGTACCGGAAAGAATGCCTTCCAACCCGCCGAGGATTTGATA
CCTACTTTGGATATCTCCTGGGTAGTGAAGATTATTATTCCCATGAACGCTGTACATTAATTGACGCTCT
GAATGTCACACGATGTGCTCTTGATTTTCGAGATGGCGAAGAAGTTGCAACAGGATATAAAAATATGTAT
TCAACAAACATATTCACCAAAAGGGCTATAGCCCTCATAACTAACCATCCACCAGAGAAGCCTCTGTTTC
TCTACCTTGCTCTCCAGTCTGTGCATGAGCCCCTTCAGGTCCCTGAGGAATACTTGAAGCCATATGACTT
TATCCAAGACAAGAACAGGCATCACTATGCAGGAATGGTGTCCCTTATGGATGAAGCAGTAGGAAATGTC
ACTGCAGCTTTAAAAAGCAGTGGGCTCTGGAACAACACGGTGTTCATCTTTTCTACAGATAACGGAGGGC
AGACTTTGGCAGGGGGTAATAACTGGCCCCTTCGAGGAAGAAAATGGAGCCTGTGGGAAGGAGGCGTCCG
AGGGGTGGGCTTTGTGGCAAGCCCCTTGCTGAAGCAGAAGGGCGTGAAGAACCGGGAGCTCATCCACATC
TCTGACTGGCTGCCAACACTCGTGAAGCTGGCCAGGGGACACACCAATGGCACAAAGCCTCTGGATGGCT
TCGACGTGTGGAAAACCATCAGTGAAGGAAGCCCATCCCCCAGAATTGAGCTGCTGCATAATATTGACCC
GAACTTCGTGGACTCTTCACCGTGTCCCAGGAACAGCATGGCTCCAGCAAAGGATGACTCTTCTCTTCCA
GAATATTCAGCCTTTAACACATCTGTCCATGCTGCAATTAGACATGGAAATTGGAAACTCCTCACGGGCT
ACCCAGGCTGTGGTTACTGGTTCCCTCCACCGTCTCAATACAATGTTTCTGAGATACCCTCATCAGACCC
ACCAACCAAGACCCTCTGGCTCTTTGATATTGATCGGGACCCTGAAGAAAGACATGACCTGTCCAGAGAA
TATCCTCACATCGTCACAAAGCTCCTGTCCCGCCTACAGTTCTACCATAAACACTCAGTCCCCGTGTACT
TCCCTGCACAGGACCCCCGCTGTGATCCCAAGGCCACTGGGGTGTGGGGCCCTTGGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214604 representing NM_000046
Red=Cloning site Green=Tags(s)

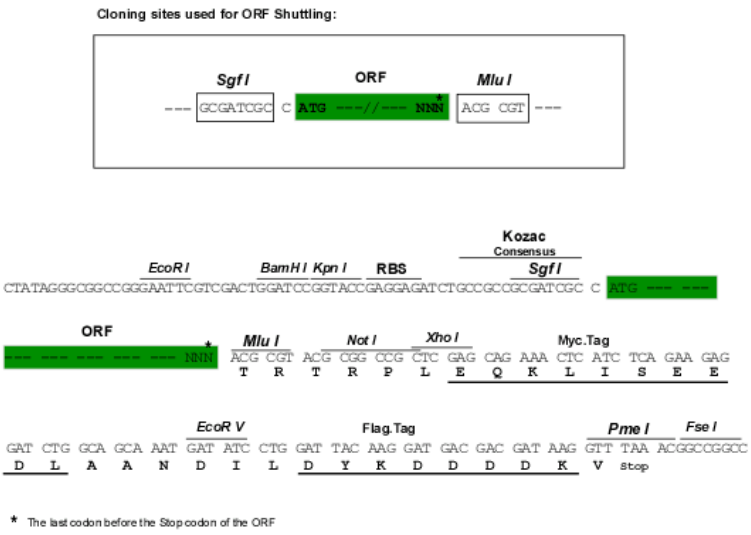
MGPRGAASLPRGPGPRRLLLPVVLPLLLLLLLAPPGSGAGASRPPHLVFLLADDLGWNDVGFHGSRIRTP
HLDALAAGGVLLDNYYTQPLCTPSRSQLLTGRYQIRTGLQHQIIWPCQPSCVPLDEKLLPQLLKEAGYTT
HMVGKWHLGMYRKECLPTRRGFDTYFGYLLGSEDYYSHERCTLIDALNVTRCALDFRDGEEVATGYKNMY
STNIFTKRAIALITNHPPEKPLFLYLALQSVHEPLQVPEEYLKPYDFIQDKNRHHYAGMVSLMDEAVGNV
TAALKSSGLWNNTVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHI
SDWLPTLVKLARGHTNGTKPLDGFDVWKTISEGSPSPRIELLHNIDPNFVDSSPCPRNSMAPAKDDSSLP
EYSAFNTSVHAAIRHGNWKLLTGYPGCGYWFPPPSQYNVSEIPSSDPPTKTLWLFDIDRDPEERHDLSRE
YPHIVTKLLSRLQFYHKHSVPVYFPAQDPRCDPKATGVWGPWM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6111_d05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000046

ORF Size: 1599 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_000046.5

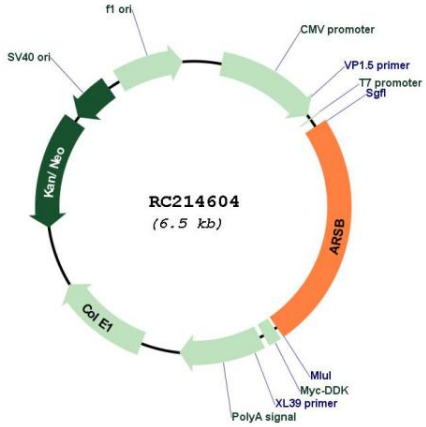
RefSeq Size: 6089 bp

RefSeq ORF: 1602 bp

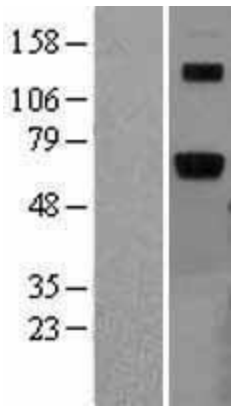
Locus ID: 411

UniProt ID:	P15848
Cytogenetics:	5q14.1
Domains:	Sulfatase
Protein Families:	Druggable Genome
Protein Pathways:	Glycosaminoglycan degradation, Lysosome, Metabolic pathways
MW:	59.69 kDa
Gene Summary:	Arylsulfatase B encoded by this gene belongs to the sulfatase family. The arylsulfatase B homodimer hydrolyzes sulfate groups of N-Acetyl-D-galactosamine, chondriotin sulfate, and dermatan sulfate. The protein is targeted to the lysozyme. Mucopolysaccharidosis type VI is an autosomal recessive lysosomal storage disorder resulting from a deficiency of arylsulfatase B. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Dec 2016]

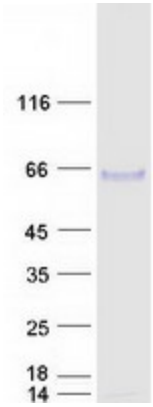
Product images:



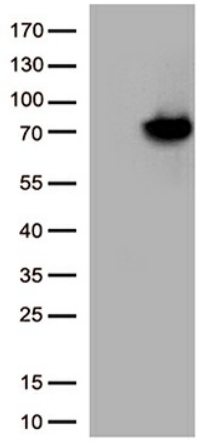
Circular map for RC214604



Western blot validation of overexpression lysate (Cat# [LY400011]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214604 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARSB protein (Cat# [TP314604]). The protein was produced from HEK293T cells transfected with ARSB cDNA clone (Cat# RC214604) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARSB (Cat# RC214604, 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-ARSB antibody (Cat# [TA812952])(1:500)