OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RN217107

Sh3bp1 (NM_001171981) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sh3bp1 (NM_001171981) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Sh3bp1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>RN217107 representing NM_001171981
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGAAGAGGCAGCTGCACCGCATGCGGCAGCTGGCCCACACGGGCAGCTCGGGACGCACCCCTGAGA
CTGCCGAGTTCTTGGGTGAGGACCTGCTGCAGGTAGAGCAGCGGTTGGAACCAGCTAAGCGAGCAGCCCA
CAATGTTCACAAAAGGCTGCAGGCCTGTCTGCAGGGCCAAAGCGGGGCTGACATGGACAAGCGGGTGAAG
AAGCTTCCCCTCATGGCTCTTTCTACCGCAATGGCTGAAAGCTTCAAGGAGTTGGATCCCGATTCCAGCA
TGGGGAAAGCCTTAGAGATGAGCTGTGCCATCCAGAACCAGCTGGCCAGAATCCTAGCAGAGTTTGAGAT
GACCCTGGAGAGAGATGTCCTGCAGCCGCTCAACAGGCTGAGCGAGGAGGAGCTGCCTGCCATCCTCAAG
CGCAAGAAGAGCCTTCAGAAGCTGGTGTCTGACTGGAACACCCTCAAAAGCAGGCTCAGCCAGGCAGCCA
AGAACTCGGGAAGCAGCCAAAGCCTGGGTGGTGGCTCAAGCAGTCACACCCACATGGCCACTGCCAACAA
GGTGGAGACGCTGAAGGAAGACGAGGAGGAGCTGAAGAGAAAGGTGGAACAGTGCAAGGATGAGTACCTG
GCTGATCTCTACCACTTCTCCACCAAGGAGGACTCATATGCCAACTACTTTACTCATCTCCTGGAGATTC
AGGCTGACTACCATCGCAAGTCACTAACCTCCCTTGACACGGCCCTAGCTGAGCTGAGGGACAACCACAG
CCAAGCAGACTCCTCCCCCTTGACGACGGCTGCCCCCTTCTCCAGAGTATATGGGGTGTCCCTGAGAACC
CACCTGCAAGATCTAGGCCGTGACATTGCCCTGCCCATCGAGGCTTGTGTCCTGTTGCTGCTGTCGGAGG
GCATGCAGGAGGAGGGCCTCTTCCGTCTGGCTGCTGGGGCCTCTGTGCTGAAGCGCCTTAAGCAGACCAT
GGCCTCAGATCCCCACAGCCTGGAGGAATTCTGCTCGGACCCCCATGCTGTAGCAGGTGCCCTCAAGTCC
TATCTCCGGGAGCTGCCAGAGCCCCTGATGACCTCTGACCTCTATGATGACTGGATGAGAGCAGCCAGCC
TGAAGGAACCAGGAGCCCGCCTGGAGGCCCTTCATGATGTTTGCAGCCGTCTACCCCAGGAGAACTTCAA
CAACCTCCGGTACCTGATGAAGTTCTTGGCACTGCTGGCCGAGGAGCAGGACGTGAACAAGATGACACCC
AGCAACATCGCCATTGTCTTGGGGCCCAACCTGCTGTGGCCTCCTGAGAAAGAAGGGGACCAGGCTCAAC
TGGACGCTGCCTCTGTGTCCTCCATTCAGGTGGTGGGTGTTGTCGAGGTGCTGATACAGAATGCAGACAC
CCTCTTTCCTGGAGATATCAACTTCAGTGTATCAGGCATCTTCTCAGGCCTGGCCCCCCAGGAGAAGCCC
AATAGTCAACAGGTCTCAGAGGAATTGGCACCTGTTGCTGTGCCTGCCACAGCCGCTACCCCAACTCCCA
CCCCAGCTCCTACCCCAGCTCCAGCCTCCATGACAGTAAAAGAAAGGACAGAGTCTGAATTGCCCAAACC
AGCTTCCCCCAAGGTCAGCAGGAGCCCCACAGATACAACTGCTTTGGCAGAGGACATGACTCGGAAGACC
AAGCGCCCAGCACCAGCCCGGCCTACCATGCCACCTCCCCAGCCTTCCAGCTCACGCTCATCCCCTCCAG
CTCTATCCCTGCCCGCTGGCTCGGTCAGCCCTGGCACTCCCCAAGCTTTGCCACGCCGTCTGGTGGGCAC
CAGCCTCCGGGCCCCCACCGTACCTCCCCCATTACCCCCTGCTCCTCCACAACCTGCCCGGCGACAGAGC
CGGCGTTTACCAGTCTCCCCCTGCCCAGCCTCCCCTGTCATTTCAAACATGCCTGCTCAGGTGGACCAGG
GAGCGGCTACAGAGGACAGAGGAGGCCCTGAGGCTGTGGGTGGGCATCCCCCTACCCCAGTTCTGCCACC
CCAGCCCCGGCCCAGGGGCCTCATTTCAGAGACAGATTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001171981

Insert Size: 2070 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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_001171981.1, NP_001165452.1
RefSeq Size:	2407 bp
RefSeq ORF:	2070 bp
Locus ID:	300067
UniProt ID:	D3ZFJ3
Cytogenetics:	7q34
Gene Summary:	GTPase activating protein/GAP which specifically converts GTP-bound Rho-type GTPases including RAC1 and CDC42 in their inactive GDP-bound form. By specifically inactivating RAC1 at the leading edge of migrating cells, it regulates the spatiotemporal organization of cell protrusions which is important for proper cell migration (PubMed:21658605). Also negatively regulates CDC42 in the process of actin remodeling and the formation of epithelial cell junctions. Through its GAP activity toward RAC1 and/or CDC42 plays a specific role in phagocytosis of large particles. Specifically recruited by a PI3 kinase/PI3K-dependent mechanism to sites of large particles engagement, inactivates RAC1 and/or CDC42 allowing the reorganization of the underlying actin cytoskeleton required for engulfment. It also plays a role in angiogenesis and the process of repulsive guidance as part of a semaphorin-plexin signaling pathway. Following the binding of PLXND1 to extracellular SEMA3E it dissociates from PLXND1 and inactivates RAC1, inducing the intracellular reorganization of the actin cytoskeleton and the collapse of cells (By similarity).[UniProtKB/Swiss-Prot Function]