

## Product datasheet for MC224997

### Sbf2 (NM\_177324) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sbf2 (NM_177324) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sbf2
Synonyms:	4833411B01Rik; AA414977; AI317167; B430219L04Rik; mMTMH1; Mtmr13
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224997 representing NM_177324 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCCCGTGGCCGACTACTTCATTGTGGTAGGCTACGACCACGAGAAGCCAGCAGGGCCAGGAGAAG  
GTCTGGGAAAAAATTCAGAGATCCACAGCAGGACTGGGATGACACGCCTTTCCACAGGGAATTGA  
ATTGTTTTGTCAACCTGGTGGATGGCACCTGTCCAGAGAGCGGAAACAGCCAACATCTTTGTGGTGGTC  
CTAACAGATATTGACTCAGATCGACATTACTGCTCATGTCTAACTTTCTATGAGGAGAGATCAATCTCC  
AGGGAACGAAGAAGGAGATTGAAGGTGAAGAAGTATCTGGTTAATCAACAGCAGAAGTATTTGC  
CCCCAAAAGCCTGGTGGTATCCAGATTAGACTATCCAGAAATCTTTAGGGCCTGCCTGGGTTTGATC  
TACTGTGTATGTGGACAGCATGAGTGTCTCCTTGAAAGTCTCATCGCAAATCTTTGTGCTTGCCTTG  
TCCCAGCTGTGGAGGTCTCAGAAGCTATTTCCCTGGGTGCAGGAGACAGACAACCTGATCCAGACACC  
TTTGCATGACAGCCTTCTGTACAGGCACTAGTGTGGCTCTTTATTTCCAGCAATTAGGCATTCAAAAC  
GTCCTCAACCTCTTCTGCGCAGTCTTACAGAAAACAAGTTCTCTTCCACTCTGCAAGCTCCAGAGAC  
TCAGTGATGCCTGTAGAGCCCTGGAATCTAATGTTTCCCTCTGAAGTACAGTTACCCGTATATCCCCAT  
CTTCCGGCTCAGCTCCTAGAAGTTTTGAGTTCTCCAACCTCCGTTCAATTATTGGCGTACACTCCATCTTT  
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GCACCCGGATTTGGAAGTAGCAGATCATGCCTCCCTCCACGAACAGCTTTATCCCACTCAAAAATG  
CTGGATAAAGAAGTTCGAGCAGTTTTCTTAGGTTATTTGCACAACGTTCCAAGGATACAGGTCATGCC  
TCCAGCTTATCCGGATCCATGCCGAGCCTGTGATACACTTTCACAAAACAGCTTTCTTGGGGCAGCGTGG  
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ATGCACCTCCTGCTACACGAATAGAAAAGAAATGTGTAGTGCCAGCAGGTCCACCCGTTGTTTCAATAAT  
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 AAGCCGTTTCTACCTCCTTTTGAATCTTCCAGTAGCATAGAGCAAGAAAAGTACTTGAAGCCTTATT  
 GACTGCAGTCATTGTCCATCAGAAACTCAGAGGCAGCAGTACTCTCACTGTCAGACCAGCACTTGCTCTG  
 TCCCCAGTGCATGGGTACAGAGACAAAAGTTTCACTCAGTCAAATCCCAAATCTTCAGCTAAGGAACCAG  
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 TGATGTTGGTGCCAGGCTGGCAGGCAAGGACCCTCAGCTCCTTCAGTAACAGTACCTACCTACAAAAC  
 CAACTCTTGAACGACAAGCCGCCCTTTATATATTTGGTGAAGTACAGCTACGGAGCTCAAAGGTAG  
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 GAAGCTGATGAGAGCTTGTATCCCAAGTACCATCCCTACAGACTCGGAAGTGACATTCCTGAAGGCCCTG  
 GGAGATTCAGTGGTTCCACAGCTTCCAGGATAATGCAGCTGGCTGTGGTTGTGTGAGAGTACTTG  
 AGAATGGGTCTTCAGTGTGGGTGTGTTTGAAGAAGGCTGGGACATCACTACACAAGTGACATCCCTGGC  
 ACAGCTACTCAGTGACCCCTTACAGGACAATCGCAGGCTTCCGGACGCTGGTGGAGAAGGAATGGCTC  
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 TCTTTTGCAGTTCTTAGACTGTGTGCACCAGGTTCAACAACAGTATCCAAGTGGTTTGAATTCATCT  
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 AGTAGAGGCCCTGAAGCCTAATGTAATGTCTCCAGCCTAAAGAAGTGGGATTACTACACAGAAGAGACC  
 CTGCTCAGGCTCCTTCATATGACTGGATGATGCTGACCCCAAGCACTTCCCTATGAGGAGTCAGATG  
 TAGCCGGAGGAGCTGGGCCCCAGAGTACAGGGAAGACAGTGTGGCCATGCTATGATGATGTGACCTGCAG  
 CCAGCCAGATGCCCTCACGAGACTTTTTCAGTGAATTTGAAAAATTTGGAGCATAAATTTGAATCAAACCTCCT  
 GAGAGATGGCACCAGCTATGGGAAAAAGTACCACGGACCTCAAGGAAGAGCCAAGAACAGCCCATTTCCC  
 TAAGACTCAGCGGGATCCCCAGGAATTGCATCTACCAACGTGCCTTCTATCAGAAGAGGCTGCGCT

GCACCCGCTACACCGAGGCTGGGCGAGGATCAGAGTACCACCACCGCCCCGTCCAATGGTGTAGAGCAC  
 AGGGCGGCCACACTTTACAGCCAGTACACATCCAAGAACGACGAGAACAGATCCTTTGAAGGAACATTAT  
 ACAAACGAGGAGCATTGCTGAAGGGTTGGAAACCCCGCTGGTTTGTGTTTATAGTGTACGAAACACCAGCT  
 GCGATACTATGATTGGGGGAAGACACGAGTTGTAAAGGCCACATTGATCTGGCTGAAGTAGAAATGGTT  
 ATCCCTGCCGGCCCCAGCATGGGAGCCCCAAAGTATAACAAGTGACAAGGCTTTCTTTGATCTCAAGACCA  
 GCAAGCGAGTGTATAACTTCTGTGCCAGGATGGGCAGAGCGCCAGCAATGGATGGACAGGATCCAGAG  
 CTGCATCTCTGATGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-Mlul

**ACCN:**

NM\_177324

**Insert Size:**

5619 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).

**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\\_177324.2](#), [NP\\_796298.2](#)

**RefSeq Size:**

7163 bp

**RefSeq ORF:**

5619 bp

**Locus ID:**

319934

**UniProt ID:**

[E9PXF8](#)

**Cytogenetics:**

7 E3

**Gene Summary:**

Guanine nucleotide exchange factor (GEF) which activates RAB21 and possibly RAB28 (By similarity). Promotes the exchange of GDP to GTP, converting inactive GDP-bound Rab proteins into their active GTP-bound form (By similarity). In response to starvation-induced autophagy, activates RAB21 which in turn binds to and regulates SNARE protein VAMP8 endolysosomal transport required for SNARE-mediated autophagosome-lysosome fusion (By similarity). Acts as an adapter for the phosphatase MTMR2 (PubMed:16399794). Increases MTMR2 catalytic activity towards phosphatidylinositol 3,5-bisphosphate and to a lesser extent towards phosphatidylinositol 3-phosphate (PubMed:16399794).[UniProtKB/Swiss-Prot Function]

