

## Product datasheet for **RG204723**

### SH2D1A (NM\_002351) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** SH2D1A (NM\_002351) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SH2D1A  
**Synonyms:** DSHP; EBVS; IMD5; LYP; MTCP1; SAP; SAP/SH2D1A; XLP; XLPD; XLPD1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG204723 representing NM\_002351  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGCAGTGGCTGTGTATCATGGCAAATCAGCAGGGAAACCGGCGAGAAGCTCCTGCTTGCCACTG  
GGCTGGATGGCAGCTATTTGCTGAGGGACAGCGAGAGCGTGCCAGGCGTGTACTGCCTATGTGTGCTGTA  
TCACGGTTACATTTATACATACCGAGTGTCCAGACAGAAACAGGTTCTTGGAGTGTGAGACAGCACCT  
GGGGTACATAAAAGATATTTCCGAAAAATAAAAAATCTCATTTCAGCATTTCAGAAGCCAGATCAAGGCA  
TTGTAATACCTCTGCAGTATCCAGTTGAGAAGAAGTCCTCAGCTAGAAGTACACAAGGTACTACAGGGAT  
AAGAGAAGATCCTGATGTCTGCCTGAAAGCCCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG204723 representing NM\_002351  
Red=Cloning site Green=Tags(s)  
MDAVAVYHGKISRETGEKLLLATGLDGSYLLRDESVPGVYCLCVLYHGVIYTYRVSQTETGWSAETAP  
GVHKRYFRKIKNLI SAFQKPDQGI VIPLQYPVEKKSSARSTQGTGIREDPDVCLKAP

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_002351

**ORF Size:** 384 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\\_002351.5](#)

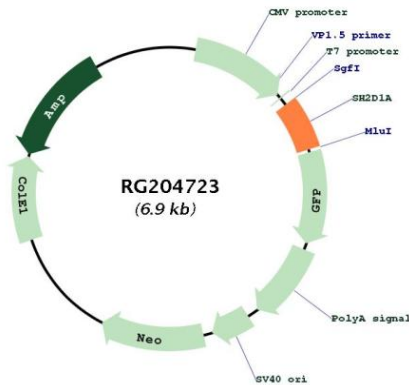
**RefSeq Size:** 2530 bp

**RefSeq ORF:** 387 bp

**Locus ID:** 4068  
**UniProt ID:** [O60880](#)  
**Cytogenetics:** Xq25  
**Domains:** SH2  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Natural killer cell mediated cytotoxicity  
**Gene Summary:**

This gene encodes a protein that plays a major role in the bidirectional stimulation of T and B cells. This protein contains an SH2 domain and a short tail. It associates with the signaling lymphocyte-activation molecule, thereby acting as an inhibitor of this transmembrane protein by blocking the recruitment of the SH2-domain-containing signal-transduction molecule SHP-2 to its docking site. This protein can also bind to other related surface molecules that are expressed on activated T, B and NK cells, thereby modifying signal transduction pathways in these cells. Mutations in this gene cause lymphoproliferative syndrome X-linked type 1 or Duncan disease, a rare immunodeficiency characterized by extreme susceptibility to infection with Epstein-Barr virus, with symptoms including severe mononucleosis and malignant lymphoma. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG204723