

## SAP/SH2D1A Protein, Human, Recombinant (His)

### General Information

Synonyms:	XLPD;EBVS;DSHP;SAP;MTCP1;IMD5;SH2 domain containing 1A;LYP;SAP/SH2D1A;XLP;XLPD1
Protein Construction:	A DNA sequence encoding the human SH2D1A isoform 1 (NP_002342.1) (Pro 2-Lys 97) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	O60880-1
Molecular Weight:	15.6 kDa (predicted); 14 kDa (reducing conditions)

### QC Testing

Biological Activity:	<ol style="list-style-type: none"><li>1. Measured by its ability to bind recombinant human SLAMF1 in a functional ELISA.</li><li>2. Measured by its ability to bind recombinant human SLAMF6 in a functional ELISA.</li><li>3. Measured by its ability to bind recombinant mouse SLAMF6 in a functional ELISA.</li><li>4. Measured by its ability to bind recombinant mouse CD84 in a functional ELISA.</li></ol>
Purity:	> 94 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Supplied as sterile PBS, pH 7.5, 20% glycerol.

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

Proteins are shipped with blue ice.

### Protein Background

SH2domain-containing protein 1A (SH2D1A / SAP) is a 128 amino acid protein, containing a single Src homology 2 (SH2) domain, flanked by 5 amino acids at the N-terminus and 25 amino acids at the C-terminus. The absence of a catalytic domain and the presence of an SH2domain suggest that SH2D1A regulates one or more signal transduction pathways. SH2D1A interacts with signaling lymphocytic activation molecule (SLAM), which is a transmembrane protein expressed on the surface of activated T and B cells. SH2D1A (SAP) interacts via its SH2domain with a motif (TIYXXV) present in the cytoplasmic tail of the cell-surface receptors, including CD150 /

## A DRUG SCREENING EXPERT

---

SLAM, CD84, CD229 / Ly-9, and CD244 / 2B4. SH2D1A was expressed in EBV-carrying, tumor phenotype representative (type I), but not in EBV-carrying lymphoblastoid cell line (LCL)-like (type III) or EBV-negative Burkitt lymphoma (BL) lines. It has been supposed to be related to the X-linked lymphoproliferative disease which is also known as Duncan's disease or Purtilo syndrome.

### Reference

Morra M, et al. (2005) Defective B cell responses in the absence of SH2D1A. PNAS. 102 (13): 4819-23.

Morra M, et al. (2001) Characterization of SH2D1A Missense Mutations Identified in X-linked Lymphoproliferative Disease Patients. The Journal of Biological Chemistry. 276: 36809-16.

Hron JD, et al. (2004) SH2D1A Regulates T-dependent Humoral Autoimmunity. JEM. 200 (2): 261-6.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481