## **PRODUCT INFORMATION**

**Expression system** Baculovirus

**Domain** 564-1049aa

**UniProt No.** Q07889

NCBI Accession No. NP\_005624

Alternative Names Son of sevenless homolog 1, SOS1, GF1, GGF1, GINGF, HGF, NS4

# **PRODUCT SPECIFICATION**

**Molecular Weight** 58kDa (495aa)

**Concentration** 0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 30% glycerol, 0.1M NaCl, 1mM DTT, 0.2mM MgCl2.

### Purity

> 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

**Tag** His-Tag

Application SDS-PAGE

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

SOS1, also known as son of sevenless homolog 1, is a Ras and Rac guanine nucleotide exchange factor. This protein is composed of several important domains. The CDC25 and REM domains provide the catalytic activity of SOS1 towards Ras and the histone fold DH/PH (Dbl homology and Pleckstrin homology) domains function, in tandem, to stimulate GTP/GDP exchange for Rac. Also, binding of GTP activates Ras proteins, and subsequent



1

hydrolysis of the bound GTP to GDP and phosphate inactivates signaling by these proteins. GTP binding can be catalyzed by guanine nucleotide exchange factors for RAS, and GTP hydrolysis can be accelerated by GTPase-activating proteins (GAPs). Recombinant human SOS1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### Amino acid Sequence

<ADP>EEQMRLP SADVYRFAEP DSEENIIFEE NMQPKAGIPI IKAGTVIKLI ERLTYHMYAD PNFVRTFLTT YRSFCKPQEL LSLIIERFEI PEPEPTEADR IAIENGDQPL SAELKRFRKE YIQPVQLRVL NVCRHWVEHH FYDFERDAYL LQRMEEFIGT VRGKAMKKWV ESITKIIQRK KIARDNGPGH NITFQSSPPT VEWHISRPGH IETFDLLTLH PIEIARQLTL LESDLYRAVQ PSELVGSVWT KEDKEINSPN LLKMIRHTTN LTLWFEKCIV ETENLEERVA VVSRIIEILQ VFQELNNFNG VLEVVSAMNS SPVYRLDHTF EQIPSRQKKI LEEAHELSED HYKKYLAKLR SINPPCVPFF GIYLTNILKT EEGNPEVLKR HGKELINFSK RRKVAEITGE IQQYQNQPYC LRVESDIKRF FENLNPMGNS MEKEFTDYLF NKSLEIEPRN PKPLPRFPKK YSYPLKSPGV RPSNPRPGT<H HHHHH>

#### **General References**

Baruzzi A., et al, (2015) J. Immunol. 195:4900-4912. Lioubin MN., et al, (1994) Mol. Cell. Biol. 14:5682-5691.

## DATA

#### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.