

Active Recombinant Human SOS1 Protein (564-1049), N-His tagged

Cat. No. SOS1-38H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active Recombinant human SOS1 (564-1049) was expressed in E. coli cells using an N-terminal His tag.
Species	Human
Source	E.coli
ProteinLength	564-1049
Description	SOS1 acts as a guanine nucleotide exchange factor (GEF) for Ras proteins, facilitating the exchange of GDP bound to Ras for GTP, which activates Ras. This activation leads to the initiation of downstream signaling cascades that regulate cellular responses. Mutations or dysregulation of SOS1 can lead to abnormal Ras signaling and contribute to the development of various diseases. SOS1 has been implicated in several types of cancer, including colorectal, lung, and melanoma. Increased expression or activity of SOS1 can enhance Ras signaling, promoting tumor growth and progression.
Molecular Mass	Observed MW: ~57 kDa Calculated MW: ~55 kDa
Purity	> 90%
Stability	One year at –70 centigrade from date of shipment.

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Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 µg/µL
Storage Buffer	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.25mM DTT, 25% glycerol.
Shipping	Dry ice

GENE INFORMATION

Gene Name	SOS1 son of sevenless homolog 1 (Drosophila) [Homo sapiens (human)]
Official Symbol	SOS1
Synonyms	SOS1; son of sevenless homolog 1 (Drosophila); GINGF, gingival fibromatosis, hereditary, 1; son of sevenless homolog 1; GF1; HGF; SOS-1; guanine nucleotide exchange factor; gingival fibromatosis, hereditary, 1; NS4; GGF1; GINGF;
Gene ID	6654
mRNA Refseq	NM_005633
Protein Refseq	NP_005624
MIM	182530
UniProt ID	Q07889

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GTPase Activity

SOS1 stimulates GTPase activity by ejecting Ras-bound GDP out of the active site.
GTPase amount: 200 ng/reaction. GAP amount: 60 ng/reaction. Reaction time: 60 min.

Purity

The purity of SOS1 was determined to be > 90% by densitometry.

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