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

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

## SPECIFICATION

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| **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<br>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

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| **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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