

#5890 Store at -20°C

SOS1 Antibody



Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M	Endogenous	152	Rabbit	#Q07889	6654

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

SOS1 Antibody detects endogenous levels of total SOS1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile1198 of human SOS1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Son of sevenless (SOS) was first identified in *Drosophila* as a guanine nucleotide exchange factor (GEF) for Ras acting downstream of the Sevenless receptor (1). Two closely related homologs of *Drosophila* SOS are found in mammalian cells: SOS1 and SOS2 (2). SOS1 consists of histone folds, Dbl (DH) and pleckstrin (PH) homology domains, a Ras exchange motif (REM), and Cdc25 homology and polyproline domains (3). SOS1 binds to GRB2, NCK, and other adaptor proteins, and plays an important role in ERK activation downstream of protein tyrosine kinase receptor (RTK). Research studies have identified mutations in the corresponding SOS1 gene of patients with Noonan syndrome, a developmental disorder characterized by short stature, facial dysmorphism, and congenital heart defects (4,5).

Background References

1. Rogge, R.D. et al. (1991) *Cell* 64, 39-48.
2. Nimnual, A. and Bar-Sagi, D. (2002) *Sci STKE* 2002, pe36.
3. Chardin, P. et al. (1993) *Science* 260, 1338-43.
4. Tartaglia, M. et al. (2007) *Nat Genet* 39, 75-9.
5. Roberts, A.E. et al. (2007) *Nat Genet* 39, 70-4.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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