

Sur-8 (E-18): sc-79612

BACKGROUND

Sur-8, also known as SHOC2 (soc-2 suppressor of clear homolog (*C. elegans*)) or SOC-2, is a 582 amino acid protein and a member of the SHOC2 family that translocates from cytoplasm to nucleus upon growth factor stimulation. Existing as two alternatively spliced isoforms, Sur-8 contains 20 leucine-rich repeats (LRR) and positively modulates Ras-MAPK signal flow. Aberrantly acquired N-myristoylation of SHOC2 is the cause of Noonan-like syndrome with loose anagen hair, a disorder characterized by slow-growing, easily pluckable, thin and sparse hair. Children with Noonan-like syndrome with loose anagen hair exhibit low-set and posteriorly rotated ears, high forehead, palpebral ptosis, hypertelorism, macrocephaly, pectus anomalie along with short and webbed neck. The gene encoding Sur-8 maps to human chromosome 10q25.2 and murine chromosome 19 D2.

REFERENCES

1. Sieburth, D.S., et al. 1998. Sur-8, a conserved Ras-binding protein with leucine-rich repeats, positively regulates Ras-mediated signaling in *C. elegans*. *Cell* 94: 119-130.
2. Selfors, L.M., et al. 1998. Soc-2 encodes a leucine-rich repeat protein implicated in fibroblast growth factor receptor signaling. *Proc. Natl. Acad. Sci. USA* 95: 6903-6908.
3. Li, W., et al. 2000. The leucine-rich repeat protein Sur-8 enhances MAP kinase activation and forms a complex with Ras and Raf. *Genes Dev.* 14: 895-900.
4. Dai, P., et al. 2006. ERBIN inhibits RAF activation by disrupting the Sur-8-Ras-Raf complex. *J. Biol. Chem.* 281: 927-933.
5. Rodriguez-Viciania, P., et al. 2006. A phosphatase holoenzyme comprised of Shoc2/Sur-8 and the catalytic subunit of PP1 functions as an M-Ras effector to modulate Raf activity. *Mol. Cell* 22: 217-230.

CHROMOSOMAL LOCATION

Genetic locus: SHOC2 (human) mapping to 10q25.2; Shoc2 (mouse) mapping to 19 D2.

SOURCE

Sur-8 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sur-8 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Sur-8 (E-18) is recommended for detection of Sur-8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sur-8 (E-18) is also recommended for detection of Sur-8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sur-8 siRNA (h): sc-76615, Sur-8 siRNA (m): sc-76616, Sur-8 shRNA Plasmid (h): sc-76615-SH, Sur-8 shRNA Plasmid (m): sc-76616-SH, Sur-8 shRNA (h) Lentiviral Particles: sc-76615-V and Sur-8 shRNA (m) Lentiviral Particles: sc-76616-V.

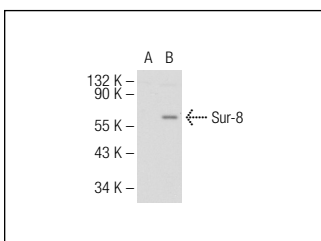
Molecular Weight of Sur-8: 65 kDa.

Positive Controls: Sur-8 (m2): 293T Lysate: sc-123846.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Sur-8 (E-18): sc-79612. Western blot analysis of Sur-8 expression in non-transfected: sc-117752 (A) and mouse Sur-8 transfected: sc-123846 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Sur-8 (D-8): sc-514779** or **Sur-8 (E-4): sc-514886**, our highly recommended monoclonal alternatives to Sur-8 (E-18).