

C9orf80 (E-12): sc-137357

BACKGROUND

The SOSS (Sensor of single-strand DNA) complex consists of multiple proteins that promote DNA repair and G₂/M checkpoint downstream of the MRN (Mre11, Rad50 and Nbs1) complex. The complex is composed of SSBP1, INTS3 and C9orf80. Specifically, the SOSS complex binds to ssDNA at DNA lesions that influences diverse endpoints in the cellular DNA damage response. The complex is required for efficient homologous recombination-dependent repair of double-stranded breaks and ATM-dependent signaling pathways. C9orf80, also known as SOSS complex subunit C and single-stranded DNA-binding protein-interacting protein 1 (SSBIP1), is a 104 amino acid nuclear protein that is a component of the SOSS complex. Upon DNA damage, C9orf80 along with other components of the SOSS complex migrate to the nucleus. There are two isoforms of C9orf80 that are produced as a result of alternative splicing events.

REFERENCES

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- Huang, J., et al. 2009. SOSS complexes participate in the maintenance of genomic stability. *Mol. Cell* 35: 384-393.

CHROMOSOMAL LOCATION

Genetic locus: C9orf80 (human) mapping to 9q32; 1110054005Rik (mouse) mapping to 4 B3.

SOURCE

C9orf80 (E-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of C9orf80 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137357 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C9orf80 (E-12) is recommended for detection of 1110054005Rik of mouse origin and C9orf80 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other C9orf family members.

C9orf80 (E-12) is also recommended for detection of C9orf80 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C9orf80 siRNA (h): sc-92835, 1110054005Rik siRNA (m): sc-108187, C9orf80 shRNA Plasmid (h): sc-92835-SH, 1110054005Rik shRNA Plasmid (m): sc-108187-SH, C9orf80 shRNA (h) Lentiviral Particles: sc-92835-V and 1110054005Rik shRNA (m) Lentiviral Particles: sc-108187-V.

Molecular Weight of C9orf80 isoforms 1/2: 11/5 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.