BACKGROUND

SPOP (speckle-type POZ protein), also known as TEF2, HIB homolog 1 or Roadkill homolog 1, is a member of the Tdpz family containing one N-terminal MATH (Meprin and TRAF Homology) domain and one C-terminal BTB/POZ domain. SPOP can exist as a homodimer and is expressed in a variety of tissues localizing to the nucleus. Through an interaction with CUL-3, SPOP is involved in ubiquitylation and protein degradation. SPOP specifically interacts with CUL-3 via its BTB/POZ domain and recruits substrates to the CUL-3-based ubiquitin ligase via its MATH domain. Substrates recruited by SPOP and targeted for ubiquitylation via the CUL-3/SPOP complex include PDX-1, Bmi-1, MacroH2A, PIPK II β and Daxx. These substrates are subsequently degraded by the proteasome. In addition, SPOP itself becomes ubiquitylated by the CUL-3-based ubiquitin ligase and is targeted for proteasomal degradation. SPOP (speckle-type POZ protein-like), also known as HIB homolog 2 or Roadkill homolog 2, is a 392 amino acid nuclear protein that may be involved in ubiquitination and proteasomal degradation processes. SPOP and SPOP-L share significant amino acid sequence homology.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: SPOP (human) mapping to 17q21.33; Spop (mouse) mapping to 11 D.

SOURCE

SPOP (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SPOP 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-66649 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPOP (C-14) is recommended for detection of SPOP 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); may cross-react with SPOPL. SPOP (C-14) is also recommended for detection of SPOP in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for SPOP siRNA (h): sc-63056, SPOP siRNA (m): sc-63057, SPOP shRNA Plasmid (h): sc-63056-SH, SPOP shRNA Plasmid (m): sc-63057-SH, SPOP shRNA (h) Lentiviral Particles: sc-63056-V and SPOP shRNA (m) Lentiviral Particles: sc-63057-V.

Molecular Weight of SPOP: 42 kDa.

Positive Controls: SPOP (h3): 293 Lysate: sc-129835, SK-N-MC cell lysate: sc-2237 or MCF7 nuclear extract: sc-2149.

DATA

SELECT PRODUCT CITATIONS


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.

Try SPOP (B-8): sc-377206, our highly recommended monoclonal alternative to SPOP (C-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see SPOP (B-8): sc-377206.