

# SIMC1 (L-12): sc-241311

## BACKGROUND

SIMC1 (SUMO-interacting motif-containing protein 1), also known as OOMA1 or C5orf25, is an 872 amino acid protein that interacts with SUMO-1 and SUMO-2 via 2 N-terminal SIM domains. SIMC1 becomes phosphorylated upon DNA damage at Serine 651 and 791. Existing as four alternatively spliced isoforms, SIMC1 is encoded by a gene that maps to human chromosome 5q35.2. With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

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- South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
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- Du, H.Y., et al. 2007. Telomerase reverse transcriptase haploinsufficiency and telomere length in individuals with 5p- syndrome. *Aging Cell* 6: 689-697.
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## CHROMOSOMAL LOCATION

Genetic locus: SIMC1 (human) mapping to 5q35.2; Simc1 (mouse) mapping to 13 B1.

## SOURCE

SIMC1 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SIMC1 of human origin.

## STORAGE

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

## 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-241311 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SIMC1 (L-12) is recommended for detection of 4732471D19Rik of mouse origin and SIMC1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for SIMC1 siRNA (h): sc-92025, 4732471D19Rik siRNA (m): sc-108956, SIMC1 shRNA Plasmid (h): sc-92025-SH, 4732471D19Rik shRNA Plasmid (m): sc-108956-SH, SIMC1 shRNA (h) Lentiviral Particles: sc-92025-V and 4732471D19Rik shRNA (m) Lentiviral Particles: sc-108956-V.

Molecular Weight of SIMC1 isoforms 1/2: 97/35 kDa.

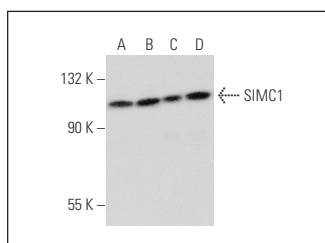
Molecular Weight of SIMC1 isoforms 3/4: 52/38 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## 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) 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



SIMC1 (L-12): sc-241311. Western blot analysis of SIMC1 expression in K-562 (A), HEK293 (B), HeLa (C) and Jurkat (D) whole cell lysates.

## RESEARCH USE

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