

Psf3 (N-14): sc-165299

BACKGROUND

The GINS complex is a heterotetramer consisting of Psf1, Psf2, Psf3 and SLD5. This complex plays an important role in the initiation of DNA replication and progression of DNA replication forks. Psf3, also known as GINS3 (GINS complex subunit 3), is a 216 amino acid nuclear protein that belongs to the GINS3/PSF3 family. Existing as two alternatively spliced isoforms, Psf3 forms a sub-complex with Psf2 and is encoded by a gene that maps to human chromosome 16q21. Human chromosome 16 encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. *Neurology* 58: 1273-1276.
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- Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13 SpecNo. 1: R161-R168.
- Ueno, M., et al. 2005. PSF1 is essential for early embryogenesis in mice. *Mol. Cell. Biol.* 25: 10528-10532.

CHROMOSOMAL LOCATION

Genetic locus: GINS3 (human) mapping to 16q21; Gins3 (mouse) mapping to 8 D1.

SOURCE

Psf3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Psf3 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-165299 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Psf3 (N-14) is recommended for detection of Psf3 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); non cross-reactive with Psf1 or Psf2.

Psf3 (N-14) is also recommended for detection of Psf3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Psf3 siRNA (h): sc-93348, Psf3 siRNA (m): sc-152541, Psf3 shRNA Plasmid (h): sc-93348-SH, Psf3 shRNA Plasmid (m): sc-152541-SH, Psf3 shRNA (h) Lentiviral Particles: sc-93348-V and Psf3 shRNA (m) Lentiviral Particles: sc-152541-V.

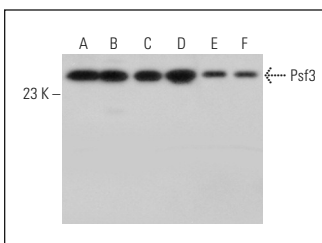
Molecular Weight of Psf3 isoforms: 25/16 kDa.

Positive Controls: MEG-01 cell lysate: sc-2283, RAW 264.7 whole cell lysate: sc-2211 or JAB whole cell lysate: sc-2207.

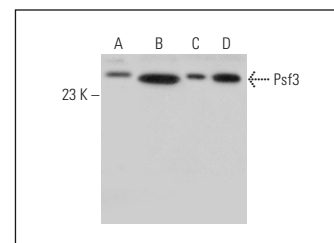
RECOMMENDED SECONDARY REAGENTS

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



Psf3 (N-14): sc-165299. Western blot analysis of Psf3 expression in MEG-01 (A), RAW 264.7 (B), HEK293 (C), Jurkat (D), HeLa (E) and MCF7 (F) whole cell lysates.



Psf3 (N-14): sc-165299. Western blot analysis of Psf3 expression in U-251-MG (A) and BJAB (B) whole cell lysates and MCF7 (C) and HeLa (D) nuclear extracts.

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.