

# OASL (N-12): sc-107831

## BACKGROUND

OASL (2'-5'-oligoadenylate synthetase-like), also known as p59OASL or TRIP14 (thyroid receptor-interacting protein 14), is a 514 amino acid protein that exists as 2 alternatively spliced isoforms, designated p56 and p30, and contains 2 ubiquitin-like domains. Expressed in a variety of tissues with highest levels present in colon, stomach and testis, OASL interacts with the ligand binding domain of the thyroid receptor (TR) and is able to bind double-stranded RNA and DNA, possibly playing a role in RNA degradation and the overall inhibition of protein synthesis. The gene encoding OASL maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

- Lee, J.W., et al. 1995. Two classes of proteins dependent on either the presence or absence of thyroid hormone for interaction with the thyroid hormone receptor. *Mol. Endocrinol.* 9: 243-254.
- Rebouillat, D., et al. 1998. Molecular cloning and characterization of two related and interferon-induced 56 kDa and 30 kDa proteins highly similar to 2'-5' oligoadenylate synthetase. *Eur. J. Biochem.* 257: 319-330.
- Hartmann, R., et al. 1998. p59OASL, a 2'-5' oligoadenylate synthetase like protein: a novel human gene related to the 2'-5' oligoadenylate synthetase family. *Nucleic Acids Res.* 26: 4121-4128.
- Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 603281. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hovnanian, A., et al. 1999. The human 2',5'-oligoadenylate synthetase-like gene (OASL) encoding the interferon-induced 56 kDa protein maps to chromosome 12q24.2 in the proximity of the 2',5'-OAS locus. *Genomics* 56: 362-363.
- Andersen, J.B., et al. 2004. Interaction between the 2'-5' oligoadenylate synthetase-like protein p59 OASL and the transcriptional repressor methyl CpG-binding protein 1. *Eur. J. Biochem.* 271: 628-636.
- Yakub, I., et al. 2005. Single nucleotide polymorphisms in genes for 2'-5'-oligoadenylate synthetase and RNase L in patients hospitalized with West Nile virus infection. *J. Infect. Dis.* 192: 1741-1748.
- Marques, J., et al. 2008. The p59 oligoadenylate synthetase-like protein possesses antiviral activity that requires the C-terminal ubiquitin-like domain. *J. Gen. Virol.* 89: 2767-2772.

## CHROMOSOMAL LOCATION

Genetic locus: OASL (human) mapping to 12q24.31.

## SOURCE

OASL (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of OASL 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-107831 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

OASL (N-12) is recommended for detection of OASL 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).

OASL (N-12) is also recommended for detection of OASL in additional species, including equine.

Suitable for use as control antibody for OASL siRNA (h): sc-95857, OASL shRNA Plasmid (h): sc-95857-SH and OASL shRNA (h) Lentiviral Particles: sc-95857-V.

Molecular Weight of OASL: 59 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.