

OAS3 (N-18): sc-49870

BACKGROUND

The 2'-5'-oligoadenylate synthetase (OAS) family is comprised of four members: OAS1, OAS2, OAS3 and OASL. These proteins are induced by interferons and function to convert ATP into 2'-5'-linked oligomers of adenosine in the presence of double-stranded RNA and magnesium ions. Copper, iron and zinc ions strongly inhibit the OAS enzymatic activity, while manganese ions can replace magnesium ions as an activator. The OAS family plays a significant role in the inhibition of cellular protein synthesis, apoptosis and growth, and its members are important factors in viral infection resistance. OAS3, also referred to as p100, contains three adjacent OAS1-like domains and maps to the human chromosome 12q24.13.

REFERENCES

- Hovanessian, A.G., et al. 1987. Identification of 69 kDa and 100 kDa forms of 2-5A synthetase in interferon-treated human cells by specific monoclonal antibodies. *EMBO J.* 6: 1273-1280.
- Corrias, M.V., et al. 1995. Induction of 2.5 OAS gene expression and activity is not sufficient for IFN- γ -induced neuroblastoma cell differentiation. *Int. J. Cancer* 62: 223-229.
- Hovnanian, A., et al. 1998. The human 2'-5'-oligoadenylate synthetase locus is composed of three distinct genes clustered on chromosome 12q24.2 encoding the 100, 69, and 40 kDa forms. *Genomics* 52: 267-277.
- Eskildsen, S., et al. 2002. Gene structure of the murine 2'-5'-oligoadenylate synthetase family. *Cell. Mol. Life Sci.* 59: 1212-1222.
- Kakuta, S., et al. 2002. Genomic structure of the mouse 2'-5'-oligoadenylate synthetase gene family. *J. Interferon Cytokine Res.* 22: 981-993.
- Eskildsen, S., et al. 2003. Characterization of the 2'-5'-oligoadenylate synthetase ubiquitin-like family. *Nucleic Acids Res.* 31: 3166-3173.

CHROMOSOMAL LOCATION

Genetic locus: OAS3 (human) mapping to 12q24.13.

SOURCE

OAS3 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of OAS3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49870 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-49870 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

OAS3 (N-18) is recommended for detection of OAS3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for OAS3 siRNA (h): sc-61245, OAS3 shRNA Plasmid (h): sc-61245-SH and OAS3 shRNA (h) Lentiviral Particles: sc-61245-V.

OAS3 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

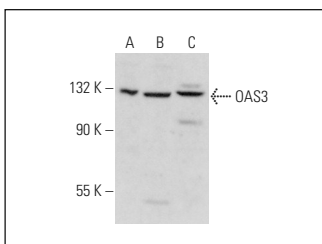
Molecular Weight of OAS3: 100 kDa.

Positive Controls: A549 cell lysate: sc-2413, U-87 MG cell lysate: sc-2411 or RT-4 whole cell lysate: sc-364257.

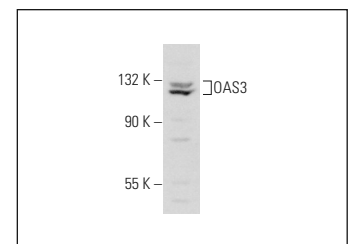
RECOMMENDED SECONDARY REAGENTS

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



OAS3 (N-18): sc-49870. Western blot analysis of OAS3 expression in RT-4 (A), U-87 MG (B) and NCI-H1299 (C) whole cell lysates.



OAS3 (N-18): sc-49870. Western blot analysis of OAS3 expression in A549 whole cell lysate.

SELECT PRODUCT CITATIONS

- Jang, J., et al. 2010. Overexpression of Newcastle disease virus (NDV) V protein enhances NDV production kinetics in chicken embryo fibroblasts. *Appl. Microbiol. Biotechnol.* 85: 1509-1520.

RESEARCH USE

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