

OAS1 (H-90): sc-98424

BACKGROUND

The 2', 5'-oligoadenylate synthetases (OASs) are interferon-induced proteins that play a putative role in mediating resistance to virus infection, control of cell growth, differentiation and apoptosis. OAS1, which functions as a homotetramer, is characterized by its capacity to catalyze the synthesis of 2', 5'-oligomers of adenosine (2-5As). OAS1 binds double-stranded RNA and polymerizes ATP into PPP(A2'P5'A)N oligomers, activating latent RNase L which, when activated, cleaves single-stranded RNAs. This RNase L activity leads to the inhibition of cellular protein synthesis and the impairment of viral replication. OAS1, a 400 amino acid containing protein, is also important in evaluating the interferon response in RNAi studies, and is implicated in diabetes mellitus susceptibility.

CHROMOSOMAL LOCATION

Genetic locus: OAS1 (human) mapping to 12q24.13.

SOURCE

OAS1 (H-90) is a rabbit polyclonal antibody raised against amino acids 311-400 mapping at the C-terminus of OAS1 p46 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98424 X, 200 µg/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.

RESEARCH USE

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

APPLICATIONS

OAS1 (H-90) is recommended for detection of OAS1 of 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), immunohistochemistry (including paraffin-embedded sections) (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 OAS1 siRNA (h): sc-61241, OAS1 shRNA Plasmid (h): sc-61241-SH and OAS1 shRNA (h) Lentiviral Particles: sc-61241-V.

OAS1 (H-90) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

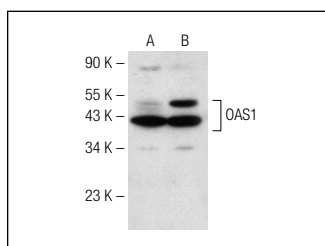
Molecular Weight of OAS1: 46 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or HL-60 whole cell lysate: sc-2209.

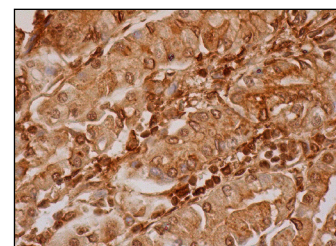
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



OAS1 (H-90): sc-98424. Western blot analysis of OAS1 expression in MCF7 (A) and HL-60 (B) whole cell lysates.



OAS1 (H-90): sc-98424. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Zhang, Q., et al. 2011. Activation of the Ras/Raf/MEK pathway facilitates HCV replication via attenuation of the IFN-JAK-Stat pathway. *J. Virol.* 86: 1544-1554.
- Kowalczyk-Zieba, I., et al. 2012. Lysophosphatidic acid action in the bovine corpus luteum—an *in vitro* study. *J. Reprod. Dev.* 58: 661-671.
- Han, T., et al. 2015. Set7 facilitates hepatitis C virus replication via enzymatic activity-dependent attenuation of the IFN-related pathway. *J. Immunol.* 194: 2757-2768.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **OAS1 (F-3): sc-374656** or **OAS1 (E-2): sc-515518**, our highly recommended monoclonal alternatives to OAS1 (H-90).