

OAS1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6226a**Specification**

OAS1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P00973](#)**OAS1 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 4938

Other Names

2'-5'-oligoadenylate synthase 1, (2-5')oligo(A) synthase 1, 2-5A synthase 1, E18/E16, p46/p42 OAS, OAS1, OIAS

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6226a](/product/products/AP6226a) was selected from the C-term region of human OAS1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

OAS1 Antibody (C-term) Blocking Peptide - Protein Information

Name OAS1

Synonyms OIAS

Function

Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response (PubMed: <http://www.uniprot.org/citations/34581622> target="_blank">34581622). In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation. Synthesizes higher oligomers of 2'-5'-oligoadenylates (2-5A) from ATP which then bind to the inactive monomeric form of ribonuclease L (RNase L) leading to its dimerization and subsequent activation. Activation of RNase L leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication (PubMed: <http://www.uniprot.org/citations/34581622> target="_blank">34581622, PubMed: <http://www.uniprot.org/citations/34581622> target="_blank">34581622).

<http://www.uniprot.org/citations/34145065>). Can mediate the antiviral effect via the classical RNase L-dependent pathway or an alternative antiviral pathway independent of RNase L. The secreted form displays antiviral effect against vesicular stomatitis virus (VSV), herpes simplex virus type 2 (HSV-2), and encephalomyocarditis virus (EMCV) and stimulates the alternative antiviral pathway independent of RNase L.

Cellular Location

Cytoplasm. Mitochondrion. Nucleus. Microsome Endoplasmic reticulum. Secreted {ECO:0000250|UniProtKB:Q29599}. Note=Associated with different subcellular fractions such as mitochondrial, nuclear, and rough/smooth microsomal fractions. [Isoform p42]: Note=(Microbial infection) In SARS coronavirus-2/SARS-CoV-2 infected cells, since its not prenylated, is diffusely localized and unable to initiate a detectable block to SARS- CoV-2 replication.

Tissue Location

Expressed in lungs..

OAS1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

OAS1 Antibody (C-term) Blocking Peptide - Images

OAS1 Antibody (C-term) Blocking Peptide - Background

OAS1 is an interferon inducible protein that may play a role in mediating resistance to virus infection, control of cell growth, differentiation, and apoptosis. It binds double-stranded RNA and polymerizes ATP into PPP(A2'P5'A)N oligomers, which activate the latent RNase L that, when activated, cleaves single-stranded RNAs. This protein is associated with different subcellular fractions such as mitochondrial, nuclear, and rough/smooth microsomal fractions.

OAS1 Antibody (C-term) Blocking Peptide - References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).Sarkar, S.N., et al., J. Biol. Chem. 274(36):25535-25542 (1999).Ghosh, A., et al., J. Biol. Chem. 272(52):33220-33226 (1997).Ghosh, S.K., et al., J. Biol. Chem. 266(23):15293-15299 (1991).Rutherford, M.N., et al., EMBO J. 7(3):751-759 (1988).