

## **OAS2 Antibody (aa357-371)**

Goat Polyclonal Antibody Catalog # ALS16310

# **Specification**

# OAS2 Antibody (aa357-371) - Product Information

Application WB, IHC
Primary Accession P29728
Reactivity Human
Host Goat
Clonality Polyclonal
Calculated MW 82kDa KDa

### OAS2 Antibody (aa357-371) - Additional Information

### **Gene ID** 4939

#### **Other Names**

2'-5'-oligoadenylate synthase 2, (2-5')oligo(A) synthase 2, 2-5A synthase 2, 2.7.7.84, p69 OAS / p71 OAS, p69OAS / p71OAS, OAS2

## Target/Specificity

Human OAS2. This antibody is expected to recognize reported isoform 1 (NP\_058197.2) and isoform 2 (NP\_002526.2).

### **Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

# **Precautions**

OAS2 Antibody (aa357-371) is for research use only and not for use in diagnostic or therapeutic procedures.

#### OAS2 Antibody (aa357-371) - Protein Information

### Name OAS2 (HGNC:8087)

# **Function**

Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response (PubMed:<a href="http://www.uniprot.org/citations/10464285" target="\_blank">10464285</a>, PubMed:<a href="http://www.uniprot.org/citations/9880569" target="\_blank">9880569</a>). Activated by detection of double stranded RNA (dsRNA): polymerizes higher oligomers of 2'-5'- oligoadenylates (2-5A) from ATP which then bind to the inactive monomeric form of ribonuclease L (RNASEL) leading to its dimerization and subsequent activation (PubMed:<a href="http://www.uniprot.org/citations/10464285" target="\_blank">10464285</a>, PubMed:<a href="http://www.uniprot.org/citations/9880569" target="\_blank">9880569</a>, PubMed:<a href="http://www.uniprot.org/citations/11682059" target="\_blank">11682059</a>). Activation of RNASEL leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication



(PubMed:<a href="http://www.uniprot.org/citations/10464285" target="\_blank">10464285</a>, PubMed:<a href="http://www.uniprot.org/citations/9880569" target="\_blank">9880569</a>). Can mediate the antiviral effect via the classical RNASEL-dependent pathway or an alternative antiviral pathway independent of RNASEL (PubMed:<a

href="http://www.uniprot.org/citations/21142819" target="\_blank">21142819</a>). In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation (PubMed:<a href="http://www.uniprot.org/citations/21142819" target="\_blank">21142819</a>). May act as a negative regulator of lactation, stopping lactation in virally infected mammary gland lobules, thereby preventing transmission of viruses to neonates

(By similarity). Non-infected lobules would not be affected, allowing efficient pup feeding during infection (By similarity).

#### **Cellular Location**

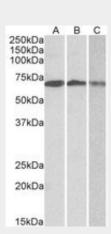
Cytoplasm. Cytoplasm, perinuclear region

# OAS2 Antibody (aa357-371) - Protocols

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

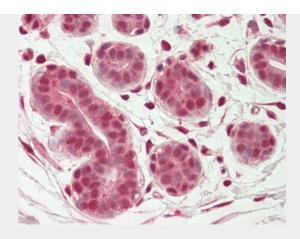
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# OAS2 Antibody (aa357-371) - Images



OAS2 antibody (0.3 ug/ml) staining of Daudi (A), Jurkat (B) and K562 (C) lysates (35 ug protein...





Anti-OAS2 antibody IHC staining of human breast.

# OAS2 Antibody (aa357-371) - Background

Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response. 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. Can mediate the antiviral effect via the classical RNase L-dependent pathway or an alternative antiviral pathway independent of RNase L.

# OAS2 Antibody (aa357-371) - References

Marie I.,et al.J. Biol. Chem. 267:9933-9939(1992).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Scherer S.E.,et al.Nature 440:346-351(2006).
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Sarkar S.N.,et al.J. Biol. Chem. 277:24321-24330(2002).