ARG40517
anti-OAS1 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes OAS1
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat, Cow, Dog, Hrs, Pig, Rb
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	OAS1
Species	Human
Immunogen	Synthetic peptide around the N-terminal region of Human OAS1. (within the following region: MMDLRNTPAKSLDKFIEDYLLPDTCFRMQINHAIDIICGFLKERCFRGSS)
Conjugation	Un-conjugated
Alternate Names	A; OIASI; p46/p42 OAS; E18/E16; 2-5'; OIAS; IFI-4; EC 2.7.7.84; 2-5A synthase 1; 2'-5'-oligoadenylate synthase 1

Application Instructions

Predict Reactivity Note	Predicted Homology Based On Immunogen Sequence: Cow: 86%; Dog: 79%; Horse: 86%; Mouse: 86%; Pig: 79%; Rabbit: 79%; Rat: 79%

Application table

Application	Dilution
IHC-P	5 µg/ml
WB	0.2 - 1 ug/ml

Application Note	IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Observed Size	39 kDa

Properties

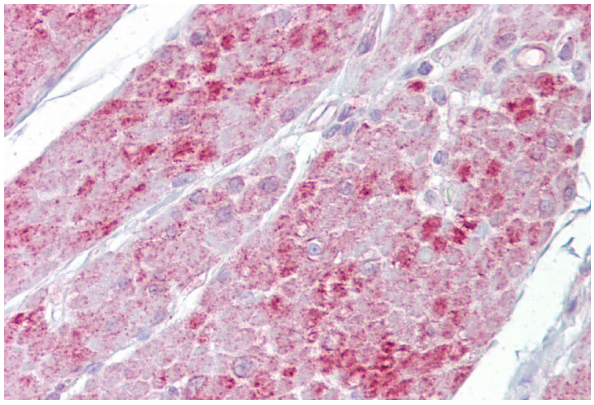
Form	Liquid
Purification	Affinity purified.
Buffer	PBS, 0.09% (w/v) Sodium azide and 2% Sucrose.
Preservative	0.09% (w/v) Sodium azide
Stabilizer	2% Sucrose

Concentration	Batch dependent: 0.5 - 1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

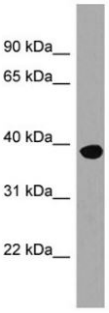
Gene Symbol	OAS1
Gene Full Name	2'-5'-oligoadenylate synthetase 1, 40/46kDa
Background	This gene encodes a member of the 2-5A synthetase family, essential proteins involved in the innate immune response to viral infection. The encoded protein is induced by interferons and uses adenosine triphosphate in 2'-specific nucleotidyl transfer reactions to synthesize 2',5'-oligoadenylates (2-5As). These molecules activate latent RNase L, which results in viral RNA degradation and the inhibition of viral replication. The three known members of this gene family are located in a cluster on chromosome 12. Mutations in this gene have been associated with host susceptibility to viral infection. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]
Function	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. 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. [UniProt]
Calculated Mw	46 kDa
Cellular Localization	Cytoplasm. Mitochondrion. Nucleus. Microsome. Endoplasmic reticulum. Secreted. Note=Associated with different subcellular fractions such as mitochondrial, nuclear, and rough/smooth microsomal fractions. [UniProt]

Images



ARG40517 anti-OAS1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human small intestine section. Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40517 anti-OAS1 antibody at 5 ug/ml, overnight at 4°C.



Human stomach

ARG40517 anti-OAS1 antibody WB image

Western blot: Human stomach lysate stained with ARG40517 anti-OAS1 antibody at 0.2 - 1 ug/ml dilution.