10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

OAS3 Rabbit pAb

Catalog # AP98218

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9Y6K5
Other Accession	Q9Y6K5
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	121170
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human OAS3
Epitope Specificity	901-1000/1087
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the 2-5A synthase family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 12q24.2

Additional Information

Gene ID	4940
Other Names	p100; p100OAS; OAS3_HUMAN; OAS3; (2-5')oligo(A) synthase 3; 2-5A synthase 3; p100 OAS (p100OAS); 2.7.7.84; 2'-5'-oligoadenylate synthetase 3; 2'-5'-oligoadenylate synthetase 3 (100 kD); 2'-5'-oligoadenylate synthetase 3, 100kDa
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	OAS3
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. Catalyzes preferentially the dimerization of ATP to form 2'-5'-diadenylate (2- 5A), but can also form the trimeric 2'-5'-oligoadenylate. The oligoadenylate then binds 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. Displays antiviral activity against Chikungunya virus (CHIKV), Dengue virus, Sindbis virus (SINV) and Semliki forest virus (SFV).
Cellular Location	Cytoplasm. Nucleus.
Tissue Location	Present at high level in placenta trophoblast.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.