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RSAD2 Polyclonal Antibody

Catalog # AP73717

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q8WXG1
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42170

Additional Information

Gene ID	91543
Other Names	RSAD2; CIG5; Radical S-adenosyl methionine domain-containing protein 2; Cytomegalovirus-induced gene 5 protein; Viperin; Virus inhibitory protein, endoplasmic reticulum-associated, interferon-inducible
Dilution	WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-1:300. ELISA: 1/20000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-1:300. ELISA: 1/20000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

Name	RSAD2 {ECO:0000312|EMBL:EAX01034.1, ECO:0000312|HGNC:HGNC:30908}
Function	Interferon-inducible antiviral protein which plays a major role in the cell antiviral state induced by type I and type II interferon (PubMed:31812350). Catalyzes the conversion of cytidine triphosphate (CTP) to 3'-deoxy-3',4'-didehydro-CTP (ddhCTP) via a SAM- dependent radical mechanism (PubMed:29925952, PubMed:30872404). In turn, ddhCTP acts as a chain terminator for the RNA-dependent RNA polymerases from multiple viruses and directly inhibits viral replication (PubMed:29925952). Therefore, inhibits a wide range of DNA and RNA viruses, including human cytomegalovirus (HCMV), hepatitis C virus (HCV), west Nile virus (WNV), dengue virus, sindbis virus, influenza A virus, sendai virus, vesicular stomatitis virus (VSV), zika virus, and human immunodeficiency virus (HIV-1) (PubMed:29925952, PubMed:30587778, PubMed:30934824, PubMed:31921110). Also promotes TLR7 and TLR9-dependent production of IFN-beta production in plasmacytoid dendritic cells (pDCs) by facilitating

'Lys-63'-linked ubiquitination of IRAK1 by TRAF6 (PubMed:30872404). Plays a role in CD4+ T-cells activation and differentiation. Facilitates T-cell receptor (TCR)- mediated GATA3 activation and optimal T-helper 2 (Th2) cytokine production by modulating NFKB1 and JUNB activities. Can inhibit secretion of soluble proteins.

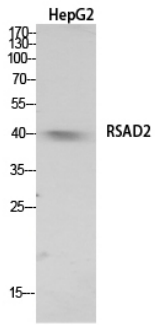
Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Golgi apparatus. Endoplasmic reticulum. Lipid droplet. Mitochondrion. Mitochondrion inner membrane. Mitochondrion outer membrane. Note=Infection with human cytomegalovirus (HCMV) causes relocation to the Golgi apparatus and to cytoplasmic vacuoles which also contain HCMV proteins glycoprotein B and pp28. Interaction with human cytomegalovirus/HHV-5 protein vMIA/UL37 results in its relocalization from the endoplasmic reticulum to the mitochondria

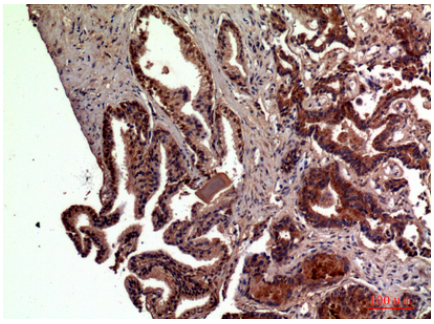
Background

Interferon-inducible iron-sulfur (4FE-4S) cluster- binding antiviral protein which plays a major role in the cell antiviral state induced by type I and type II interferon. Can inhibit a wide range of DNA and RNA viruses, including human cytomegalovirus (HCMV), hepatitis C virus (HCV), west Nile virus (WNV), dengue virus, sindbis virus, influenza A virus, sendai virus, vesicular stomatitis virus (VSV), and human immunodeficiency virus (HIV-1). Displays antiviral activity against influenza A virus by inhibiting the budding of the virus from the plasma membrane by disturbing the lipid rafts. This is accomplished, at least in part, through binding and inhibition of the enzyme farnesyl diphosphate synthase (FPPS), which is essential for the biosynthesis of isoprenoid-derived lipids. Promotes TLR7 and TLR9-dependent production of IFN-beta production in plasmacytoid dendritic cells (pDCs) by facilitating Lys-63'- linked ubiquitination of IRAK1. Plays a role in CD4+ T-cells activation and differentiation. Facilitates T-cell receptor (TCR)- mediated GATA3 activation and optimal T-helper 2 (Th2) cytokine production by modulating NFKB1 and JUNB activities. Can inhibit secretion of soluble proteins.

Images

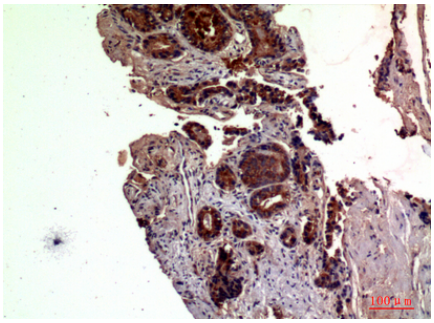


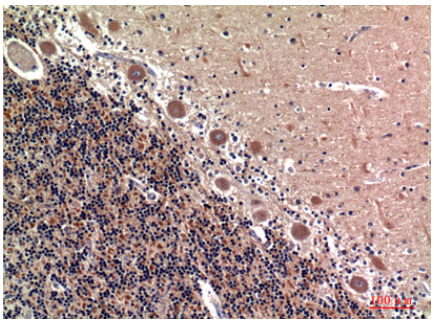
Western Blot analysis of HepG2 cells using RSAD2 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-prostate-cancer, antibody was diluted at 1:100

Immunohistochemical analysis of paraffin-embedded human-prostate-cancer, antibody was diluted at 1:100





Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:100