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Goat anti-DDX58 Antibody
Peptide-affinity purified goat antibody
Catalog # AF4494a

Specification

Goat anti-DDX58 Antibody - Product Information

Application	**IHC, IF, FC, Pep-ELISA**
Primary Accession	O95786
Other Accession	NP_055129.2
Reactivity	**Human, Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**106600**

Goat anti-DDX58 Antibody - Additional Information

Gene ID 23586

Other Names
DDX58 ; DEAD (Asp-Glu-Ala-Asp) box polypeptide 58; DKFZp434J1111 ; DKFZp686N19181 ; FLJ13599; RIG-I; DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide ; DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide RIG-I ; OTTHUMP00000045225 ; RNA helicase ; RNA helicase RIG-I

Dilution
IHC~~1:100~500
IF~~1:50~200
FC~~1:10~50
Pep-ELISA~~N/A

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat anti-DDX58 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat anti-DDX58 Antibody - Protein Information

Name RIGI (HGNC:19102)

Synonyms DDX58

Function

Innate immune receptor that senses cytoplasmic viral nucleic acids and activates a downstream signaling cascade leading to the production of type I interferons and pro-inflammatory cytokines (PubMed:15208624, PubMed:15708988, PubMed:16125763, PubMed:16127453, PubMed:16153868, PubMed:17190814, PubMed:18636086, PubMed:19122199, PubMed:19211564, PubMed:24366338, PubMed:28469175, PubMed:29117565, PubMed:31006531, PubMed:34935440, PubMed:35263596, PubMed:36793726). Forms a ribonucleoprotein complex with viral RNAs on which it homooligomerizes to form filaments (PubMed:15208624, PubMed:15708988). The homooligomerization allows the recruitment of RNF135 an E3 ubiquitin-protein ligase that activates and amplifies the RIG-I- mediated antiviral signaling in an RNA length-dependent manner through ubiquitination-dependent and -independent mechanisms (PubMed:28469175, PubMed:31006531). Upon activation, associates with mitochondria antiviral signaling protein (MAVS/IPS1) that activates the IKK-related kinases TBK1 and IKBKE which in turn phosphorylate the interferon regulatory factors IRF3 and IRF7, activating transcription of antiviral immunological genes including the IFN-alpha and IFN-beta interferons (PubMed:28469175, PubMed:31006531). Ligands include 5'- triphosphorylated ssRNAs and dsRNAs but also short dsRNAs (<1 kb in length) (PubMed:15208624, PubMed:15708988, PubMed:19576794, PubMed:19609254, PubMed:21742966). In addition to the 5'-triphosphate moiety, blunt-end base pairing at the 5'-end of the RNA is very essential (PubMed:15208624, PubMed:15708988, PubMed:19576794, PubMed:19609254, PubMed:21742966). Overhangs at the non- triphosphorylated end of the dsRNA RNA have no major impact on its activity (PubMed:15208624, PubMed:15708988, PubMed:19576794, PubMed:19609254, PubMed:21742966). A 3'overhang at the 5'triphosphate end decreases and any 5'overhang at the 5' triphosphate end abolishes its activity (PubMed:15208624, PubMed:15708988, PubMed:19576794, PubMed:<a href="http://www.uniprot.org/citations/19609254"

target="_blank">19609254, PubMed:21742966). Detects both positive and negative strand RNA viruses including members of the families Paramyxoviridae: Human respiratory syncytial virus and measles virus (MeV), Rhabdoviridae: vesicular stomatitis virus (VSV), Orthomyxoviridae: influenza A and B virus, Flaviviridae: Japanese encephalitis virus (JEV), hepatitis C virus (HCV), dengue virus (DENV) and west Nile virus (WNV) (PubMed:21616437, PubMed:21884169). It also detects rotaviruses and reoviruses (PubMed:21616437, PubMed:21884169). Detects and binds to SARS-CoV-2 RNAs which is inhibited by m6A RNA modifications (Ref.74). Also involved in antiviral signaling in response to viruses containing a dsDNA genome such as Epstein-Barr virus (EBV) (PubMed:19631370). Detects dsRNA produced from non-self dsDNA by RNA polymerase III, such as Epstein-Barr virus-encoded RNAs (EBERs). May play important roles in granulocyte production and differentiation, bacterial phagocytosis and in the regulation of cell migration.

Cellular Location
Cytoplasm. Cell projection, ruffle membrane. Cytoplasm, cytoskeleton. Cell junction, tight junction Note=Colocalized with TRIM25 at cytoplasmic perinuclear bodies Associated with the actin cytoskeleton at membrane ruffles

Tissue Location
Present in vascular smooth cells (at protein level).

Goat anti-DDX58 Antibody - 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

Goat anti-DDX58 Antibody - Images