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Rabbit Anti-phospho-DDX58 (Thr170) antibody

SL5300R

Product Name:	phospho-DDX58 (Thr170)
Chinese Name:	磷酸化DDX58抗体
Alias:	p-DDX58 (Thr170); DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide RIG-I; DKFZp434J1111; DKFZp686N19181; FLJ13599; C330021E21; OTTHUMP00000045225; DEAD (Asp-Glu-Ala-Asp) box polypeptide 58; DEAD (Asp Glu Ala Asp/His) box polypeptide; DEAD box protein 58; Probable ATP dependent RNA helicase DDX58; Retinoic acid inducible gene 1 protein; RIG I; rig-I; RIG1; rigi; RNA helicase.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	102kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human DDX58 around the phosphorylation site of Thr170:PK(p-T)LK
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed

Product Detail:	The innate immune system detects viral infection by recognizing various viral components and triggers antiviral responses. Like the toll-like receptor 3 (TLR3), the cytoplasmic helicase retinoic acid inducible gene protein 1 (RIG1/DDX58) recognizes double-stranded (ds) RNA, a molecular pattern associated with viral infection. Unlike TLR3 however, RIG1/DDX58 activates the kinases TBK1 and IKKe through the adaptor protein IPS1. These kinases then phosphorylate the transcription factors IRF3 and IRF7 which are essential for the expression of type-I interferons. RIG1/DDX58 is required for the production of interferons in response to RNA viruses including paramyxoviruses, influenza virus, and Japanese encephalitis virus. **Function:** Involved in innate immune defense against viruses. Upon interaction with intracellular dsRNA produced during viral replication, triggers a transduction cascade involving MAVS/IPS1, which results in the activation of NF-kappa-B, IRF3 and IRF7 and the induction of the expression of antiviral cytokines such as IFN-beta and RANTES (CCL5). Detects dsRNA produced from non-self dsDNA by RNA polymerase III, such as Epstein-Barr virus-encoded RNAs (EBERs). Essential for the production of interferons in response to RNA viruses including paramyxoviruses, influenza viruses, Japanese encephalitis virus and HCV. **Subunit:** Monomer; maintained as a monomer in an autoinhibited state. Upon viral dsRNA binding and conformation shift, homomultimerizes and interacts with MAVS. Interacts with DHX58/LGP2, IKBKE, TBK1 and TMEM173/STING. Interacts (via CARD domain) with TRIM25 (via SPRY domain). Interacts with RNF135. Interacts with CYLD. Interacts with NLRC5; blocks the interaction of MAVS to DDX58. Interacts with SRC. **Subcellular Location:** Cytoplasm. Note=Colocalized with TRIM25 at cytoplasmic perinuclear bodies. **Tissue Specificity:** Present in vascular smooth cells (at protein level). **Post-translational modifications:** Phosphorylated in resting cells and dephosphorylated in RNA virus-infected cells. Phosphorylation at Thr-770, Ser-854 and Ser-855 results in inhibition of its activity while dephosphorylation at these sites results in its activation. Isgylated. Conjugated to ubiquitin-like protein ISG15 upon IFN-beta stimulation. Ubiquitinated. Undergoes 'Lys-48'- and 'Lys-63'-linked ubiquitination. Lys-172 is the critical site for TRIM25-mediated ubiquitination, for MAVS/IPS1 binding and to induce anti-viral signal transduction. Lys-154, Lys-164 and Lys-172 are critical sites for RNF135-mediated ubiquitination. Deubiquitinated by CYLD, a protease that selectively cleaves 'Lys-63'-linked ubiquitin chains. Also probably deubiquitinated by USP17L2/USP17 that cleaves 'Lys-48'-and 'Lys-63'-linked ubiquitin chains and positively regulates the receptor.

Similarity:
Belongs to the helicase family.
Contains 2 CARD domains.
Contains 1 helicase ATP-binding domain.
Contains 1 helicase C-terminal domain.

SWISS:
O95786

Gene ID:
23586

Database links:

Entrez Gene: 23586Human

Entrez Gene: 230073Mouse

Entrez Gene: 297989Rat

Omim: 609631Human

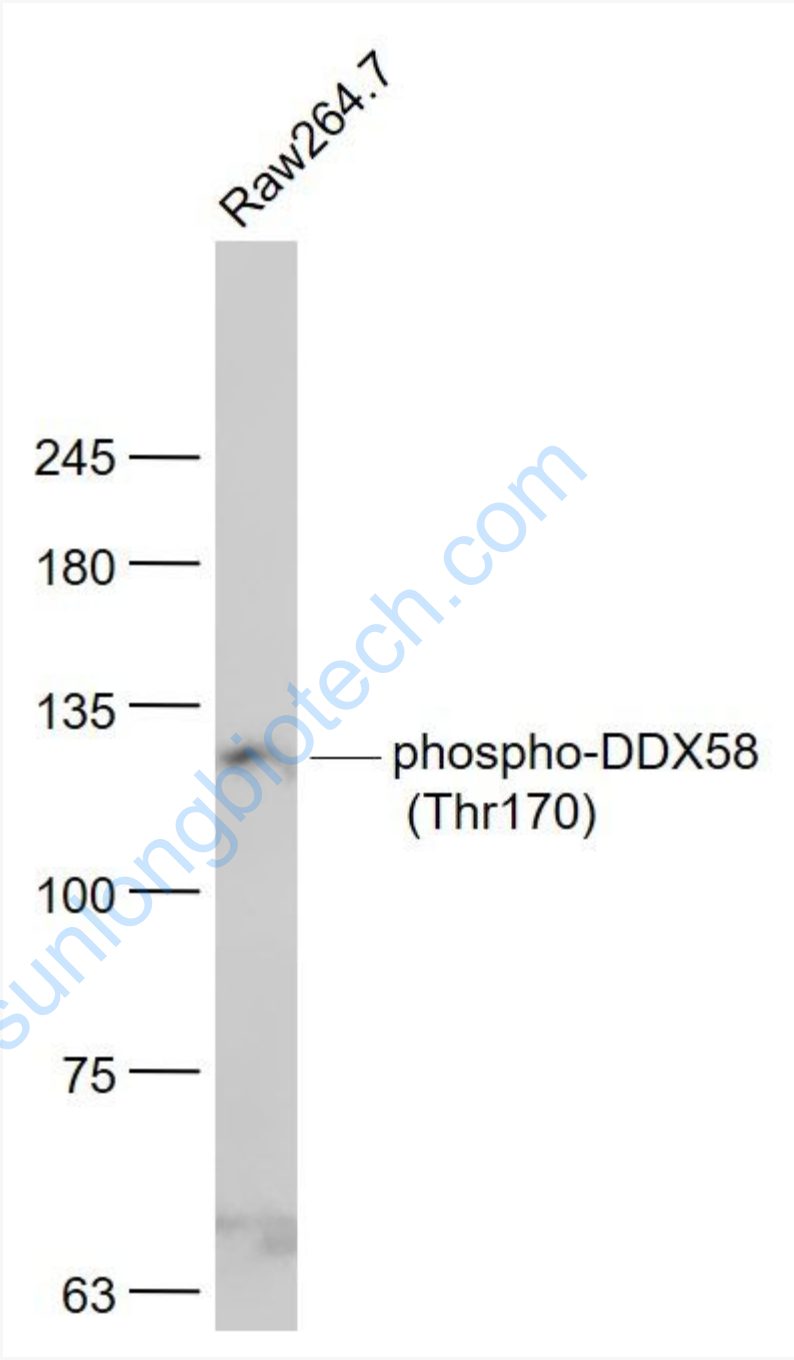
SwissProt: O95786Human

SwissProt: Q6Q899Mouse

Unigene: 190622Human

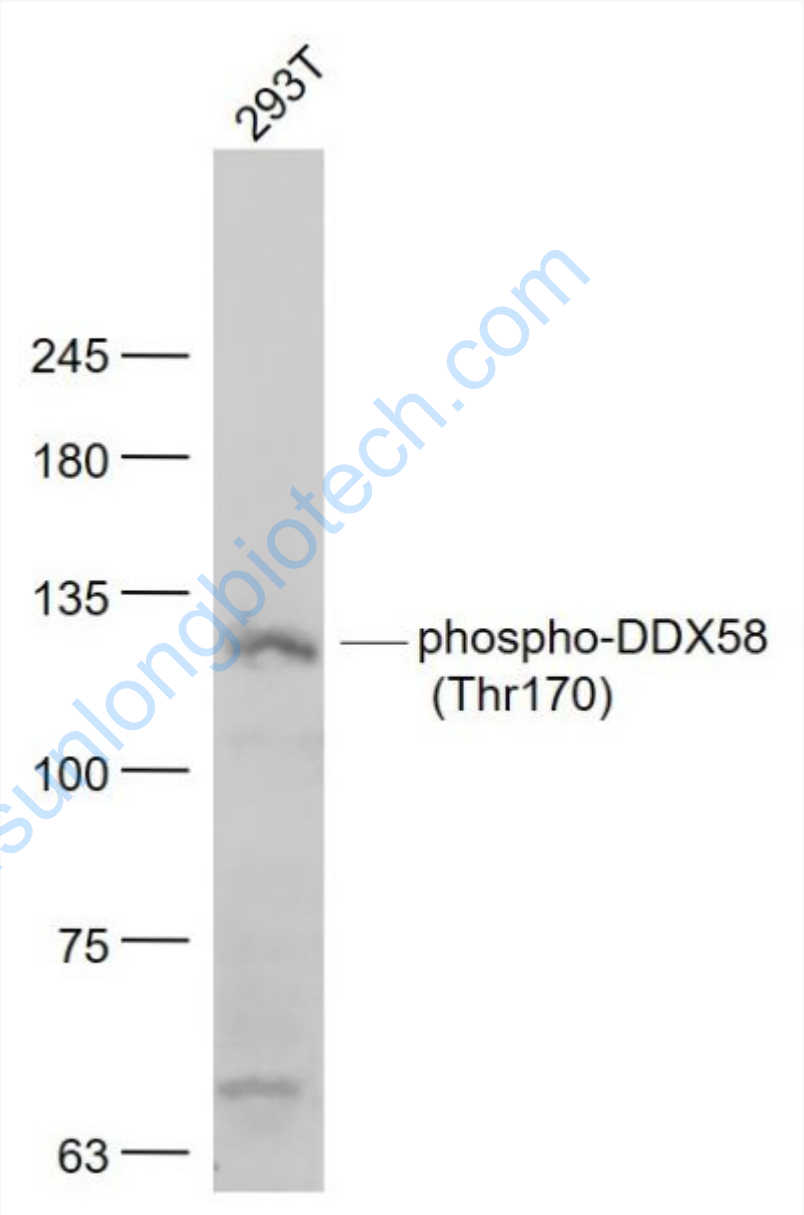
Unigene: 86382Mouse

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Sample: Raw264.7(Mouse) Cell Lysate at 30 ug Primary: Anti- phospho-DDX58 (Thr170) (SL5300R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 102 kD

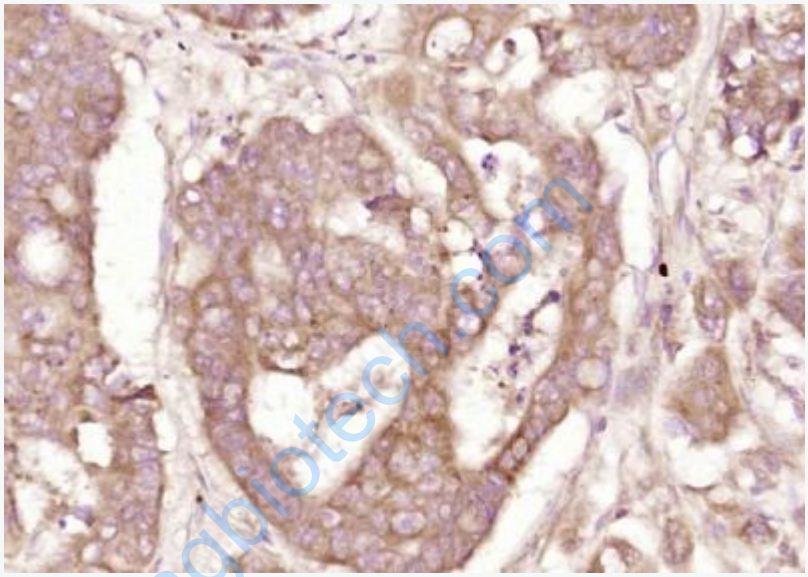
Observed band size: 120 kD

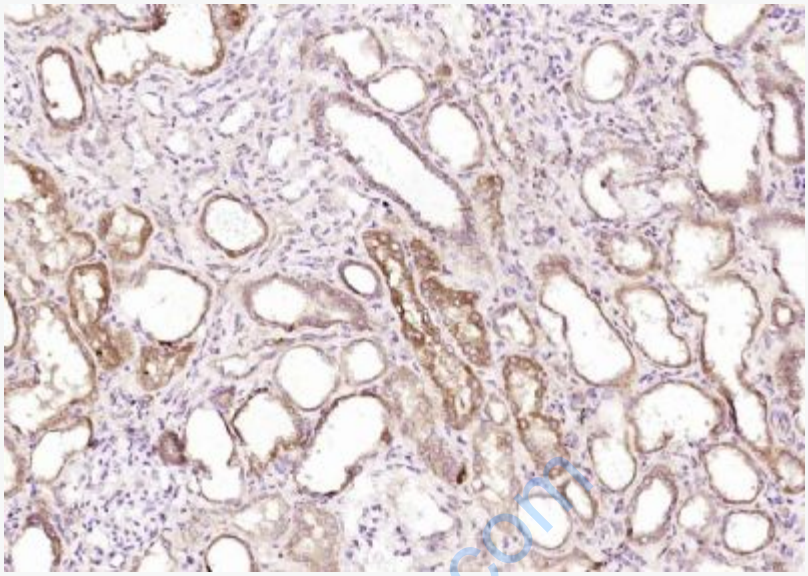


Sample:

293T(Human) Cell Lysate at 30 ug

Primary: Anti- phospho-DDX58 (Thr170) (SL5300R) at 1/1000 dilution

	Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 102 kD Observed band size: 120 kD
	 Paraformaldehyde-fixed, paraffin embedded (human cervical carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-DDX58 (Thr170)) Polyclonal Antibody, Unconjugated (SL5300R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-DDX58 (Thr170)) Polyclonal Antibody, Unconjugated (SL5300R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.