

RIG-I Polyclonal Antibody

Catalog NumberPA5-11727

Product data sheet

| Details | | Species Reactivity | |
|--------------------|---|--|---------|
| Size | 400 µL | Species reactivity | Human |
| Host/Isotope | Rabbit / IgG | <div>Tested ApplicationsDilution *</div> | |
| Class | Polyclonal | | |
| Type | Antibody | Western Blot (WB) | 1:1,000 |
| Immunogen | KLH conjugated synthetic peptide between 585-614 amino acids from the central region of human RIG-I | Immunocytochemistry (ICC/IF) | 1:200 |
| | | * Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls. | |
| Conjugate | Unconjugated | | |
| Form | Liquid | | |
| Concentration | 2 mg/mL | | |
| Purification | Ammonium sulfate precipitation, Size-exclusion - Dialysis | | |
| Storage buffer | PBS | | |
| Contains | 0.09% sodium azide | | |
| Storage Conditions | -20° C, Avoid Freeze/Thaw Cycles | | |

Background/Target Information

Retinoic acid-inducible gene I, RIG-I is a pattern recognition receptor (PRR) involved in the recognition of viral dsRNA. Along with MDA5, RIG-I detects viral dsRNA and activates the innate immune response. Both MDA5 and RIG-I are RNA helicases and they perform overlapping as well as distinct roles. RIG-I is activated by dsRNAs without a 5'-triphosphate end and short dsRNAs, whereas MDA5 is activated by long dsRNAs. Once activated, both proteins signal through IPS-1 activating transcription factors NF-kappaB and IRF-3 (1) and ultimately activating apoptosis, cytokine signaling, and inflammation. RIG-I is essential for signaling by influenza A, influenza B, human respiratory syncytial virus (3), paromyxoviruses, Japanese encephalitis virus, and West Nile virus. MicroRNA-146a has been implicated in feedback inhibition of RIG-I-dependant antiviral response by negatively regulating RIG-I targets TRAF6, IRAK1, and IRAK2. Recent evidence has implicated RIG-I in the detection of cytosolic DNA through RNA polymerase III activity.

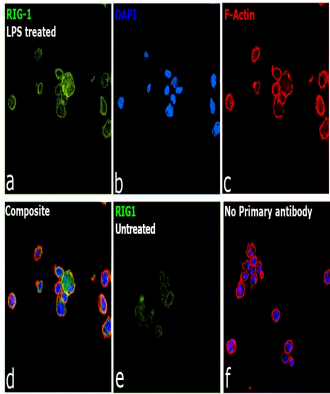
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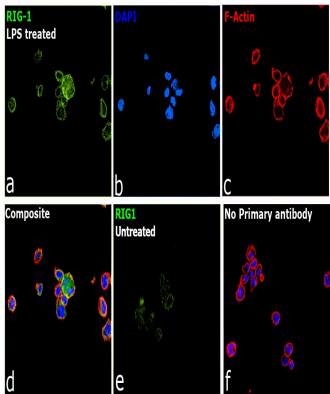
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Product Images For RIG-I Polyclonal Antibody



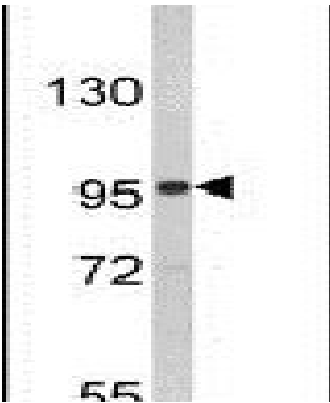
RIG-I Antibody (PA5-11727) in ICC/IF

Immunofluorescence analysis of Probable ATP-dependent RNA helicase DDX58 was performed using 70% confluent log phase THP-1 cells and THP-1 cells treated with 1 µg/mL of LPS for 18 h. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with RIG-I Polyclonal Antibody (Product # PA5-11727) at 1:200 in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32790), (1:2500), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b:Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1: 300). Panel d represents the merged image showing Cytosolic localization. Panel f represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



RIG-I Antibody (PA5-11727)

Detection of altered subcellular localization of the target protein by cell treatment demonstrates antibody specificity. Immunofluorescence analysis using RIG-I Polyclonal Antibody (Product # PA5-11727), shows increased expression of protein in THP-1 cell line upon treatment with LPS. {TM}



RIG-I Antibody (PA5-11727) in WB

Western blot analysis using a RIG-I polyclonal antibody (Product # PA5-11727) in 293 cell lysates (35 µg per lane).

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