RIG-I ABfinity[™] **Recombinant Rabbit** Monoclonal Antibody - Purified

invitrogen™

REF Catalog no. 700366

(See product label for lot information)

Clone/PAD:
Isotype:
Gene ID:
Protein Acc. No.:
Qty:
Volume:
Concentration:

35H2L48 lqG 230073 Q6Q899 100 µg 200 µl 0.5 mg/ml

Formulation PBS + 0.09% azide

Immunogen

A recombinant protein corresponding to amino acids 454-600 of Q6Q899.

Immunogen sequence

VYKPQKISRKVASRTSNTFKCIISQLMKET EKLAKDVSEELGKLFQIQNREFGTQKYEQ WIVGVHKACSVFQMADKEEESRVCKALF LYTSHLRKYNDALIISEDAQMTDALNYLKA FFHDVREAAFDETERELTRRFEEKLEELE Κ

Reactivity

This antibody reacts with Human RIG-I. Based on sequence similarity, reactivity to mouse is expected.

Storage

2-8°C for up to 1 mo, -20°C for long term storage. Avoid repeated freezing and thawing.

Expiration Date

Expires one year from date of receipt when stored as instructed.

Validated Applications:

	Species	Test Material	Concentration
Western Blotting	human	293 + RIG-I- FLAG	3-5 µg/ml

Background

Retinoic acid-inducible gene I, RIG-I is a pattern recognition receptor (PRR) involved in the recognition of viral dsRNA (1). 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 (2). Once activated, both proteins signal through IPS-1 activating transcription factors NF-kB and IRF-3 (1) and ultimately activating apoptosis, cytokine signaling, and inflammation (3). RIG-I is essential for signaling by influenza A, influenza B, human respiratory syncytial virus (3), paromyxoviruses, Japanese encephalitis virus (4), and West Nile virus (5). MicroRNA-146a has been implicated in feedback inhibition of RIG-I-dependant antiviral response by negatively regulating RIG-I targets TRAF6, IRAK1, and IRAK2 (6). Recent evidence has implicated RIG-I in the detection of cytosolic DNA through RNA polymerase III activity (7,8).

References

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- 8. of an RNA polymerase III-transcribed RNA intermediate. Nat. Immunol. 10: 1065-1073.

FORM-00089 (Rev 0.0)

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Western blot of 293 lysates labeled with rabbit anti-RIG-I (Cat. No. 700366).

Rabbit anti-RIG-I (4 $\mu g/ml)$ was used to label FLAG-tagged RIG-I in transfected 293 lysates (lane 2). Anti-FLAG was used as a control (lane 1).

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