

Rig-I Pathway Antibody Sampler Kit

Cat# AK0260

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

PRODUCT DESCRIPTION

Antiviral innate immunity depends on the combination of parallel pathways triggered by virus detecting proteins in the Toll-like receptor (TLR) family and RNA helicases, such as Rig-I (retinoic acid-inducible gene I) and MDA-5 (melanoma differentiation-associated antigen 5), which promote the transcription of type I interferons (IFN) and antiviral enzymes. TLRs and helicase proteins contain sites that recognize the molecular patterns of different virus types, including DNA, single-stranded RNA (ssRNA), double-stranded RNA (dsRNA), and glycoproteins. These antiviral proteins are found in different cell compartments; TLRs (i.e. TLR3, TLR7, TLR8, and TLR9) are expressed on endosomal membranes and helicases are localized to the cytoplasm. Rig-I expression is induced by retinoic acid, LPS, IFN, and viral infection. Both Rig-I and MDA-5 share a DExD/H-box helicase domain that detects viral dsRNA and two amino-terminal caspase recruitment domains (CARD) that are required for triggering downstream signaling. Rig-I binds both dsRNA and viral ssRNA that contains a 5'-triphosphate end not seen in host RNA. Though structurally related, Rig-I and MDA-5 detect a distinct set of viruses. The CARD domain of the helicases, which is sufficient to generate signaling and IFN production, is recruited to the CARD domain of the MAVS/VISA/Cardif/IPS-1 mitochondrial protein, which triggers activation of NF- κ B, TBK1/IKK ϵ , and IRF-3/IRF-7.

PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340588	IFIH1 Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse	Rabbit
A340157	DDX58 Polyclonal Antibody	20 μ L	WB, ELISA	Human	Rabbit
A340164	MAVS Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse	Rabbit
A340570	IRF3 Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
A340366	Phospho-IRF3 (Ser385) Polyclonal Antibody	20 μ L	WB, IHC, IF, ELISA	Human	Rabbit
A340111	IKBKE Polyclonal Antibody	20 μ L	WB, IHC, ELISA	Human, Mouse	Rabbit

A1013s	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat
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PRODUCT USE LIMITATION

These products are intended for research use only.