Anti-DDX58(Probable ATP-dependent RNA helicase DDX58)(DEAD-box protein 58) Phospho-Polyclonal Antibody

Category: Phospho-Polyclonal Antibody

Category: S8 Phospho-AB4C031(Phospho Site: 8S)

Antigen Synonym: RIG-1 (Retinoic acid-inducible gene 1 protein)

Species Reactivity: Human

Immunogen/Specificity:
Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of human DDX58(Probable ATP-dependent RNA helicase DDX58)(DEAD-box protein 58)

Description: DDX58(Probable ATP-dependent RNA helicase DDX58)(DEAD-box protein 58) is 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). DDX58 detects dsRNA produced from non-self dsDNA by RNA polymerase III, such as Epstein-Barr virus-encoded RNAs (EBERs). DDX58 is essential for the production of interferons in response to RNA viruses including paramyxoviruses, influenza viruses, Japanese encephalitis virus and HCV. DDX58 is maintained as a monomer in an autoinhibited state. Upon viral dsRNA binding and conformation shift, homomultimerizes and interacts with MAVS. DDX58 interacts with DHX58/LGP2, IKBKE, TBK1 and TMEM173/STING. DDX58 is present in vascular smooth cells. The repressor domain controls homomultimerization and interaction with MAVS. The helicase domain is responsible for dsRNA recognition. The 2 CARD domains are responsible for interaction with and signaling through MAVS. DDX58 is conjugated to ubiquitin-like protein ISG15 upon IFN-beta stimulation. DDX58 belongs to the helicase family and contains 2 CARD domains, 1 helicase ATP-binding domain and 1 helicase C-terminal domain.

Reference:
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