

ARG56905 anti-IRF7 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IRF7
Tested Reactivity	Ms
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IRF7
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 257-516 of Human IRF7 (NP_004022.2).
Conjugation	Un-conjugated
Alternate Names	IRF7A; IRF-7H; IRF7C; IRF7B; IRF7H; Interferon regulatory factor 7; IRF-7; IMD39

Application Instructions

Predict Reactivity Note	Mouse				
Application table	<table> <tr> <th>Application</th><th>Dilution</th></tr> <tr> <td>WB</td><td>1:500 - 1:2000</td></tr> </table>	Application	Dilution	WB	1:500 - 1:2000
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WB	1:500 - 1:2000				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				
Positive Control	293T				
Observed Size	~ 80 kDa				

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Gene Symbol	IRF7
Gene Full Name	interferon regulatory factor 7
Background	IRF7 encodes interferon regulatory factor 7, a member of the interferon regulatory transcription factor (IRF) family. IRF7 has been shown to play a role in the transcriptional activation of virus-inducible cellular genes, including interferon beta chain genes. Inducible expression of IRF7 is largely restricted to lymphoid tissue. Multiple IRF7 transcript variants have been identified, although the functional consequences of these have not yet been established. [provided by RefSeq, Jul 2008]
Function	Key transcriptional regulator of type I interferon (IFN)-dependent immune responses and plays a critical role in the innate immune response against DNA and RNA viruses. Regulates the transcription of type I IFN genes (IFN-alpha and IFN-beta) and IFN-stimulated genes (ISG) by binding to an interferon-stimulated response element (ISRE) in their promoters. Can efficiently activate both the IFN-beta (IFNB) and the IFN-alpha (IFNA) genes and mediate their induction via both the virus-activated, MyD88-independent pathway and the TLR-activated, MyD88-dependent pathway. Required during both the early and late phases of the IFN gene induction but is more critical for the late than for the early phase. Exists in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, becomes phosphorylated by IKBKE and TBK1 kinases. This induces a conformational change, leading to its dimerization and nuclear localization where along with other coactivators it can activate transcription of the type I IFN and ISG genes. Can also play a role in regulating adaptive immune responses by inducing PSMB9/LMP2 expression, either directly or through induction of IRF1. Binds to the Q promoter (Qp) of EBV nuclear antigen 1 a (EBNA1) and may play a role in the regulation of EBV latency. Can activate distinct gene expression programs in macrophages and regulate the anti-tumor properties of primary macrophages. [UniProt]
Calculated Mw	54 kDa
PTM	Acetylation inhibits its DNA-binding ability and activity. In response to a viral infection, phosphorylated on Ser-477 and Ser-479 by TBK1 and IKBKE1. Phosphorylation, and subsequent activation is inhibited by vaccinia virus protein E3. In TLR7- and TLR9-mediated signaling pathway, phosphorylated by IRAK1. TRAF6-mediated ubiquitination is required for IRF7 activation. Sumoylated by TRIM28, which inhibits its transactivation activity. [UniProt]
Cellular Localization	Nucleus. Cytoplasm. Note=The phosphorylated and active form accumulates selectively in the nucleus. [UniProt]

Images

