SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Marker Primary Antibody]

Rabbit Anti-IRF7/FITC Conjugated antibody

Catalog Number: SL2994R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-IRF7/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human IRF7
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse,Rat(predicted:Human,Dog,Pig,Cow,Rabbit)
Background:	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

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	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. **Subunit:** Monomer. Homodimer; phosphorylation-induced. Heterodimer with IRF3. Interacts with TICAM1 and TICAM2. Interacts with rotavirus A NSP1; this interaction leads to the proteasome-dependent degradation of IRF7. Interacts with Epstein-Barr virus LF2. Interacts with MYD88 AND TRAF6. **Subcellular Location:** Nucleus. Cytoplasm. Note=The phosphorylated and active form accumulates selectively in the nucleus. **Tissue Specificity:** Expressed predominantly in spleen, thymus and peripheral blood leukocytes. **Post-translational modifications:** 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 (By similarity). Sumoylated by TRIM28, which inhibits its transactivation activity. **Similarity:** Belongs to the IRF family. Contains 1 IRF tryptophan pentad repeat DNA-binding domain. **Database links:** **Entrez Gene:** 3665 Human **Entrez Gene:** 54123 Mouse **Entrez Gene:** 293624 Rat Omim: 605047 Human **SwissProt:** Q92985 Human **SwissProt:** P70434 Mouse

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	Unigene: 166120 Human **Unigene:** 3233 Mouse **Unigene:** 101159 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.