Revision 3

Store at -20C

#43573

Type I Interferon Induction and Signaling Antibody Sampler Kit

1 Kit (9 x 20 microliters)

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-IRF-3 (Ser386) (E7J8G) XP® Rabbit mAb	37829	20 µl	50-55 kDa	Rabbit IgG
IRF-3 (D6I4C) XP® Rabbit mAb	11904	20 µl	50-55 kDa	Rabbit IgG
Phospho-IRF-7 (Ser477) (D7E1W) Rabbit mAb	12390	20 µl	65 kDa	Rabbit IgG
IRF-7 (D2A1J) Rabbit mAb	13014	20 µl	65 kDa	Rabbit IgG
IFN-β1 (D1D7G) Rabbit mAb	73671	20 µl	19, 21 kDa	Rabbit IgG
Phospho-Stat1 (Ser727) (D3B7) Rabbit mAb	8826	20 µl	91 kDa	Rabbit IgG
Stat1 (D1K9Y) Rabbit mAb	14994	20 µl	84, 91 kDa	Rabbit IgG
IRF-9 (D2T8M) Rabbit mAb	76684	20 µl	48 kDa	Rabbit IgG
MX1 (D3W7I) Rabbit mAb	37849	20 µl	76 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Type I Interferon Induction and Signaling Antibody Sampler Kit provides an economical means of detecting the activation of pathways leading to upregulation of type I interferon (IFN), expression of IFN-β1, activation of signaling downstream of type I IFN, and expression of the MX1 interferon response gene, using phospho-specific and control antibodies. The kit includes enough antibodies to perform at least two western blot experiments.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibodies.*

Background

The innate immune system uses pattern recognition receptors (PRRs) that detect conserved pathogen-associated molecular patterns (PAMPs), such as cytoplasmic double-stranded RNA, to detect and initiate an immune response to viral infection. Detection of virus by PRRs leads to phosphorylation and nuclear translocation of IRF-3 and IRF-7, resulting in upregulation of type I interferons, which include IFN-α and IFN-β (1-3). Type I interferons signal through the interferon α/β receptor (IFNAR), leading to phosphorylation and activation of Stat1 and Stat2, which form a complex with IRF-9 (4,5). This complex translocates to the nucleus where it induces transcription of interferon response genes including viral restriction factors, such as MX1, that limit viral replication and propagation (4-7).

Background References

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4. Fu, X.Y. et al. (1990) *Proc Natl Acad Sci U S A* 87, 8555-9.
5. Qureshi, S.A. et al. (1995) *Proc Natl Acad Sci U S A* 92, 3829-33.
6. Staeheli, P. et al. (1986) *Cell* 44, 147-58.
7. Staeheli, P. and Haller, O. (1985) *Mol Cell Biol* 5, 2150-3.

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