

Product Information

Anti-phospho-Interferon- α Receptor, Type I [pSer⁵³⁵/pSer⁵³⁹], Subunit 1 (IFNAR1) Developed in Rabbit, Affinity Isolated Antibody

Product Number **P 4623**

Product Description

Anti-phospho-Interferon- α Receptor, Type I [pSer⁵³⁵/pSer⁵³⁹], Subunit 1 (IFNAR1) was developed in rabbit using a synthetic phosphorylated peptide corresponding to the amino acid residues surrounding the human phospho-Interferon- α Receptor, Type I, [pSer⁵³⁵/pSer⁵³⁹], subunit 1 (IFNAR1). The final product was purified by sequential chromatography on phospho- and non-phosphopeptide affinity columns.

The antigen sequence used is virtually identical to the bovine, mouse and rat forms of IFNAR1. The antibody is used in immunoblotting and dot blot applications.

Interferons are widely used therapeutic agents because of their anti-tumor and antiviral effects and because of their modulatory effects on the immune system. These cytokines produce their effects by binding to the type 1 interferon receptor (IFNAR1). Down regulation of this receptor plays a key role in determining the magnitude and duration of cytokine signaling. This down regulation is thought to be influenced by phosphorylation of serine 535 and 539 in the IFNAR1.

Reagent

The antibody is supplied as 100 μ L in 10 mM HEPES, pH 7.5, 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol.

Storage/Stability

Store at -20°C . Due to the presence of 50% glycerol the antibody will remain in solution. For extended storage, centrifuge the vial briefly before opening and prepare working aliquots. To ensure accurate dilutions mix gently, remove excess solution from pipette tip with clean absorbent paper, pipette slowly. The antibody is stable for at least 24 months when stored at -20°C . Defrosted aliquots in use should be stored at $2-8^{\circ}\text{C}$. Avoid repeated freezing and thawing.

Product Profile

Supplied amount is adequate for 10-mini immunoblots.

A recommended working dilution of 1:1000 is determined for immunoblotting using Flag immunoprecipitates from HEK 293 cells transfected with 1. Mock; 2. IFNAR1 wt; and 3. IFNAR1 S535A and S539A mutants. A working dilution of 1:1000 is also recommended for dot blots.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

Figure 1. Anti-Phospho-Interferon- α Receptor, Type I [pSer⁵³⁵/pSer⁵³⁹]

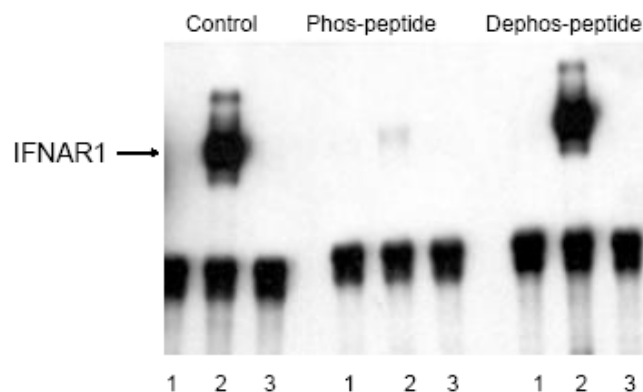


Figure 1 shows immunolabeling of Flag immunoprecipitates from HEK 293 cells transfected with 1. Mock; 2. IFNAR1 wt; and 3. IFNAR1 S535A and S539A mutants. The labeling by the antibody is absent in the IFNAR1 Ser⁵³⁵ and Ser⁵³⁹ mutants. In addition, the labeling is blocked by the phosphopeptide used as antigen but not by the dephosphorylated form of this peptide.

References

1. Kumar, K.G., et al., SCF(HOS) ubiquitin ligase mediates the ligand-induced down-regulation of the interferon- α receptor., *EMBO J.*, **22**, 5480 – 5490 (2003).
2. Kirkwood, J., Cancer immunotherapy: the interferon- α experience., *Semin Oncol*, **29**, 18–26 (2002).
3. Biron, C.A., Interferons α and β as immune regulators-a new look., *Immunity*, **14**, 661–664 (2001).
4. Stark, G.R., et al., How cells respond to interferons., *Annu Rev Biochem*, **67**, 227 – 264 (1998).

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