

**Mouse Irf3 Blocking Peptide (N-term)**  
**Synthetic peptide**  
**Catalog # BP20073a****Specification**

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**Mouse Irf3 Blocking Peptide (N-term) - Product Information**

Primary Accession [P70671](#)  
Other Accession [Q764M6](#), [Q4JF28](#), [NP\\_058545.1](#)

**Mouse Irf3 Blocking Peptide (N-term) - Additional Information**

**Gene ID** 54131

**Other Names**

Interferon regulatory factor 3, IRF-3, Irf3

**Target/Specificity**

The synthetic peptide sequence is selected from aa 61-72 of MOUSE Irf3

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Mouse Irf3 Blocking Peptide (N-term) - Protein Information**

**Name** Irf3

**Function**

Key transcriptional regulator of type I interferon (IFN)- dependent immune responses which plays a critical role in the innate immune response against DNA and RNA viruses (PubMed:<a href="http://www.uniprot.org/citations/15800576" target="\_blank">15800576</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/15800576" target="\_blank">15800576</a>). Acts as a more potent activator of the IFN-beta (IFNB) gene than the IFN-alpha (IFNA) gene and plays a critical role in both the early and late phases of the IFNA/B gene induction (PubMed:<a href="http://www.uniprot.org/citations/16846591" target="\_blank">16846591</a>, PubMed:<a href="http://www.uniprot.org/citations/16979567" target="\_blank">16979567</a>, PubMed:<a href="http://www.uniprot.org/citations/20049431" target="\_blank">20049431</a>). Found in an inactive form in the cytoplasm of uninfected cells and following viral infection, double-stranded RNA (dsRNA), or toll-like receptor (TLR) signaling, is phosphorylated by IKBKE and TBK1 kinases (PubMed:<a href="http://www.uniprot.org/citations/16846591" target="\_blank">16846591</a>),

PubMed:<a href="http://www.uniprot.org/citations/16979567" target="\_blank">16979567</a>, PubMed:<a href="http://www.uniprot.org/citations/20049431" target="\_blank">20049431</a>). This induces a conformational change, leading to its dimerization and nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of the type I IFN and ISG genes (PubMed:<a href="http://www.uniprot.org/citations/16846591" target="\_blank">16846591</a>, PubMed:<a href="http://www.uniprot.org/citations/16979567" target="\_blank">16979567</a>, PubMed:<a href="http://www.uniprot.org/citations/20049431" target="\_blank">20049431</a>). Can activate distinct gene expression programs in macrophages and can induce significant apoptosis in primary macrophages (PubMed:<a href="http://www.uniprot.org/citations/16846591" target="\_blank">16846591</a>, PubMed:<a href="http://www.uniprot.org/citations/16979567" target="\_blank">16979567</a>, PubMed:<a href="http://www.uniprot.org/citations/20049431" target="\_blank">20049431</a>).

### Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q14653}. Nucleus {ECO:0000250|UniProtKB:Q14653}. Mitochondrion {ECO:0000250|UniProtKB:Q14653}. Note=Shuttles between cytoplasmic and nuclear compartments, with export being the prevailing effect. When activated, IRF3 interaction with CREBBP prevents its export to the cytoplasm. Recruited to mitochondria via TOMM70:HSP90AA1 upon Sendai virus infection. {ECO:0000250|UniProtKB:Q14653}

### Mouse Irf3 Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### Mouse Irf3 Blocking Peptide (N-term) - Images

### Mouse Irf3 Blocking Peptide (N-term) - Background

Mediates interferon-stimulated response element (ISRE) promoter activation. Functions as a molecular switch for antiviral activity. DsRNA generated during the course of an viral infection leads to IRF3 phosphorylation on the C-terminal serine/threonine cluster. This induces a conformational change, leading to its dimerization, nuclear localization and association with CREB binding protein (CREBBP) to form dsRNA-activated factor 1 (DRAF1), a complex which activates the transcription of genes under the control of ISRE. The complex binds to the IE and PRDIII regions on the IFN-alpha and IFN-beta promoters respectively. IRF-3 does not have any transcription activation domains (By similarity).

### Mouse Irf3 Blocking Peptide (N-term) - References

Marichal, T., et al. J. Allergy Clin. Immunol. 126(4):836-844(2010)  
Menachery, V.D., et al. J. Virol. 84(19):9685-9694(2010)  
Carrigan, S.O., et al. J. Immunol. 185(6):3602-3609(2010)  
Wang, J., et al. J. Immunol. 185(3):1720-1729(2010)  
Farlik, M., et al. Immunity 33(1):25-34(2010)