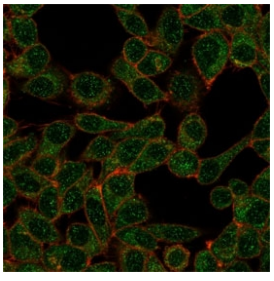
IRF9 Antibody / Interferon regulatory factor 9 [clone PCRP-IRF9-2F8] (V9381)

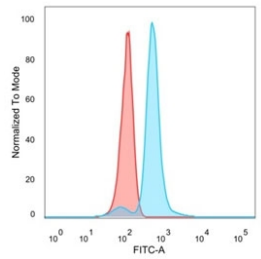
Catalog No.	Formulation	Size
V9381-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9381-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9381SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

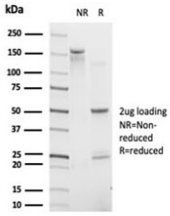
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a
Clone Name	PCRP-IRF9-2F8
Purity	Protein A/G affinity
UniProt	Q00978
Localization	Nuclear, cytoplasmic
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml
Limitations	This IRF9 antibody is available for research use only.



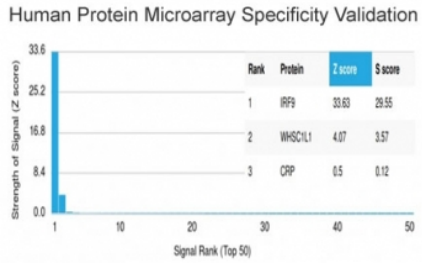
Immunofluorescent staining of PFA-fixed human HeLa cells using IRF9 antibody (green, clone PCRP-IRF9-2F8) and phalloidin (red).



FACS staining of PFA-fixed human HeLa cells with IRF9 antibody (blue, clone PCRP-IRF9-2F8), and unstained cells (red).



SDS-PAGE analysis of purified, BSA-free IRF9 antibody (clone PCRP-IRF9-2F8) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using IRF9 antibody (clone PCRP-IRF9-2F8). These results demonstrate the foremost specificity of the PCRP-IRF9-2F8 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

IRF9 antibody (clone PCRP-IRF9-2F8) detects Interferon Regulatory Factor 9, a transcriptional regulator that mediates type I interferon (IFN) signaling and antiviral defense. The UniProt recommended name is Interferon regulatory factor 9 (IRF9). Also known as ISGF3G or p48, this nuclear protein is an essential component of the interferon-stimulated gene factor 3 (ISGF3) transcription complex, which drives the expression of interferon-stimulated genes (ISGs) following immune activation.

Functionally, IRF9 antibody identifies a 393-amino-acid DNA-binding protein that contains an N-terminal helix-turn-helix DNA-binding domain and a C-terminal IRF-association domain. Upon activation by type I interferons (IFN-alpha and IFN-beta), IRF9 associates with phosphorylated STAT1 and STAT2 to form the ISGF3 complex. This complex translocates to the nucleus, binds interferon-stimulated response elements (ISREs), and initiates transcription of antiviral and immune-modulatory genes. Through this signaling cascade, IRF9 serves as a master regulator of cellular defense, apoptosis, and inflammatory balance.

The IRF9 gene is located on chromosome 14q12 and is expressed in a wide range of immune and non-immune tissues, including leukocytes, endothelial cells, and hepatocytes. Expression is strongly induced by interferons, viral infection, and inflammatory cytokines. IRF9 integrates with the JAK-STAT pathway to coordinate cellular responses against viral pathogens, influencing antiviral immunity and cytokine sensitivity. In addition to its canonical role in antiviral defense, IRF9 also participates in cell cycle control and modulation of metabolic and inflammatory gene networks.

Pathologically, altered IRF9 expression has been implicated in immune dysregulation, viral susceptibility, and oncogenesis. Loss or mutation of IRF9 can impair interferon signaling, leading to chronic viral infections or reduced immune surveillance. Overexpression, on the other hand, has been linked to autoimmune conditions and interferonopathies characterized by persistent activation of ISGs. Research using IRF9 antibody (clone PCRP-IRF9-2F8)

supports studies in innate immunity, antiviral signaling, and interferon pathway regulation.

IRF9 antibody (clone PCRP-IRF9-2F8) is validated for use in relevant research applications to detect Interferon Regulatory Factor 9 and study its role in interferon signaling and antiviral defense. NSJ Bioreagents provides this antibody optimized for studies in immunology, cell signaling, and gene regulation.

Application Notes

Optimal dilution of the IRF9 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human IRF9 protein was used as the immunogen for the IRF9 antibody.

Storage

Aliquot the IRF9 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.