Purified anti-IRF8 Antibody

Catalog# / Size	656501 / 25 µg 656502 / 100 µg
Clone	7G11A45
Regulatory Status	RUO
Other Names	Interferon regulatory factor 8, Interferon consensus sequence-binding protein (ICSBP)
Isotype	Mouse IgG1, κ
Description	IRF8 is a member of the IRF family of transcription factors, playing important roles in IFN signaling pathways and innate immune responses. It regulates hematopoietic cell growth and differentiation of macrophage and dendritic cells. Homozygous IRF8-deficient (IRF8-/-) mice have impaired production of interferon and IL-12, exhibit increased susceptibility to viral pathogens, and have marked expansion of granulocytes that results in a phenotype similar to chronic myelogenous leukemia (CML). IRF8 is also expressed in B lymphocytes, involved in differentiation and commitment of B cell lineage. The DNA-binding activity of IRF8 is significantly increased when interacting with other transcription factors, such as the other members of the IRF family and the ETS family transcription factors. Therefore, the transcriptional activity of IRF8 is dependent on the transcription factors with which it associates.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partial human IRF8 recombinant protein (116-220 a.a.)
Formulation	This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	WB - Quality tested ICC, IP - Verified
Recommended Usage	Each lot of this antibody is quality control tested by Western blotting. For Western blotting, the suggested use of this reagent is 0.5 - 1.0 µg per ml. For immunocytochemistry, a concentration of 5.0 µg/ml is recommended. For immunoprecipitation, the suggested use of this reagent is 5.0 - 20 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Product Citations	1. Tian Y, *et al.* 2019. Cell Rep. 29:4482. PubMed 2. Schwabenland M, *et al.* 2021. Immunity. . PubMed 3. McDaniel MM, *et al.* 2020. Cell Reports. 31(5):107604. PubMed
RRID	AB_2562396 (BioLegend Cat. No. 656501) AB_2562395 (BioLegend Cat. No. 656502)

Antigen Details

Structure	426 amino acids, predicted molecular weight of 48 kD, contains a IRF tryptophan pentad repeat responsible for DNA binding and a C-terminal IRF association domain (IAD) responsible for heterodimerization with other transcription factors

Distribution	Nucleus
Function	Transcription factor primarily expressed in hematopoietic cells, regulates expression of type I IFN and IFN-inducible genes in response to viral infection
Interaction	Interacts with BATF, JunB, TRIM21, and COPS2
Cell Type	B cells, Dendritic cells
Biology Area	Cell Biology, Immunology, Innate Immunity, Transcription Factors
Molecular Family	Nuclear Markers
Antigen References	1. Minten C, *et al.* 2012. *PLoS One.* 7:e49851. 2. Xu H, *et al.* 2012. *Nat. Immunol.* 13:642. 3. Ouyang X, *et al.* 2011. *Nat. Commun.* 2:314. 4. Shin DM, *et al.* 2011. *PLoS One.* 6:e27384. 5. Wang H, *et al.* 2009. *Immunol. Res.* 43:109. 6. Qi CF, *et al.* 2009. *Immunol. Res.* 45:62.
Gene ID	3394

Related Protocols

Immunocytochemistry Staining Protocol

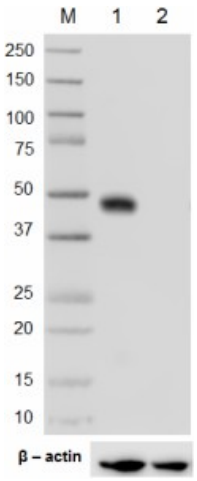
Western Blotting Protocol

Immunoprecipitation Protocol

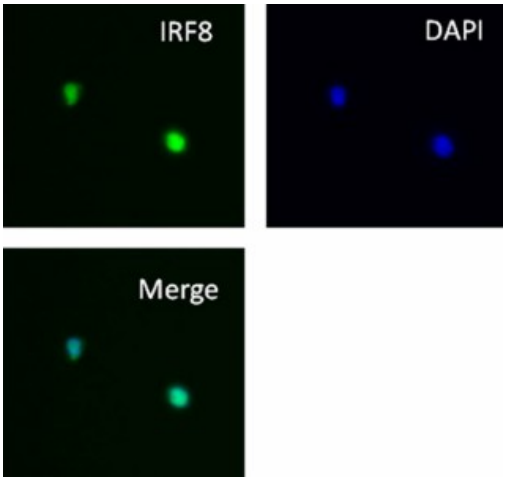
Other Formats

Purified anti-IRF8, Direct-Blot™ HRP anti-IRF8

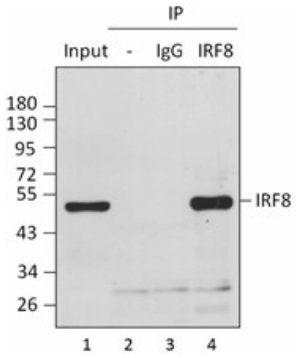
Product Data



Total cell lysates (15 µg protein) from THP-1 (lane 1) and HeLa (lane 2) cells were resolved by electrophoresis (4-20% Tris-Glycine gel), transferred to nitrocellulose, and probed with 0.5 µg/mL Purified anti-IRF 8 Antibody (1:1000 dilution), clone 7G11A45 (upper). Proteins were visualized by chemiluminescence detection using a 1:3000 diluted goat anti-mouse-IgG secondary antibody conjugated to HRP for anti-IRF 8 Antibody, or 1:5000 diluted Direct-Blot HRP anti-β-Actin Antibody, clone 2F1-1 (lower). Lane M: Molecular weight ladder.



THP-1 cells were stained with purified anti-IRF8 (7G11A45) antibody, followed by staining with DyLight™ 488 conjugated goat anti-mouse IgG (green) antibody. Nuclei were stained with DAPI (blue).



Immunoprecipitation of IRF8 from THP-1 cell extracts. Lane 1 is 5% input. Immunoprecipitation was performed using protein G resins only (lane 2), mouse IgG isotype control (lane 3), and anti-IRF8 antibody (clone 7G11A45, lane 4). Western blot was performed using anti-IRF8 antibody (clone 7G11A45).

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