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IFI16 Antibody

Store at -20C
#8079

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 85, 95, 98	Source/Isotype: Rabbit	UniProt ID: #Q16666	Entrez-Gene Id: 3428
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

IFI16 Antibody recognizes endogenous levels of total IFI16 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro399 of human IFI16 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

IFI16 belongs to the PYHIN family, which consists of four members in humans (Aim2, IFIX, MND4, and IFI16) and at least thirteen members in mice (1). The closest homolog of IFI16 in mice is p204. The PYHIN family is characterized by the presence of one or two HIN-200 domains that bind double stranded DNA and a PYRIN domain that mediates interactions among family members, as well as the inflammasome-forming ASC protein (1). IFI16 also has a nuclear localization signal, but has been observed to bind DNA in both the cytoplasm and nucleus (2,3). There are three isoforms of IFI16 produced by alternative splicing (4). IFI16 is constitutively expressed by some cells, such as lymphocytes, and highly inducible in many others by interferons (5). IFI16 has been shown to directly interact with p53 and to play a role in cellular senescence by modulating p53 activity (6). IFI16 was shown to directly sense intracellular viral DNA, leading to recruitment of STING and activation of IRF-3 and NF-κB (2). Investigators have observed increased levels of IFI16 and anti-IFI16 autoantibodies in patients with systemic lupus erythematosus (7-9).

Background References

1. Keating, S.E. et al. (2011) *Trends Immunol* 32, 574-81.
2. Unterholzner, L. et al. (2010) *Nat Immunol* 11, 997-1004.
3. Kerur, N. et al. (2011) *Cell Host Microbe* 9, 363-75.
4. Johnstone, R.W. et al. (1998) *Biochemistry* 37, 11924-31.
5. Trapani, J.A. et al. (1992) *Immunogenetics* 36, 369-76.
6. Johnstone, R.W. et al. (2000) *Oncogene* 19, 6033-42.
7. Choubey, D. and Panchanathan, R. (2008) *Immunol Lett* 119, 32-41.
8. Mondini, M. et al. (2006) *Arthritis Rheum* 54, 3939-44.
9. Seelig, H.P. et al. (1994) *Arthritis Rheum* 37, 1672-83.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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