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IRAK Antibody

IRAK (1F12C1): IL-1-Receptor Associated Kinase

CATALOG NO.: PM-5315

BACKGROUND:

Nuclear factor kappa B (NF-κB) is a ubiquitous transcription factor and an essential mediator of gene expression during activation of immune and inflammatory responses. NF-κB mediates the expression of a great variety of genes in response to extracellular stimuli including IL-1, TNFα and LPS. A serine/threonine protein kinase associated with IL-1 receptor (IRAK) and its homologue mouse pelle-like protein kinase (mPLK) were identified recently (1,2). IRAK is associated with the IL-1 receptor subunits IL-1RI and IL-1RAcP after IL-1 binding and serves as a signaling molecule to mediate IL-1 response (3). IRAK mediates a signaling cascade leading to NF-κB activation by members in IL-1 family including IL-1 and a novel cytokine IL-18 (also termed IGIF) (1,4).

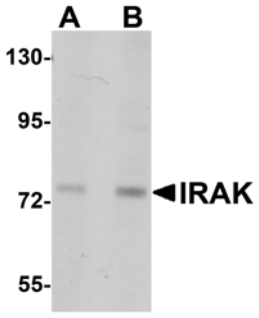
SOURCE:

Mouse monoclonal IRAK antibody was raised against a recombinant protein corresponding to amino acids 618 - 712 of human IRAK (GenBank accession no. P51617).

APPLICATION:

IRAK antibody can be used for Western blot at 1 μg/ml (Optimal dilution should be determined by user.) HeLa whole cell lysate can be used as positive control. IRAK antibody is human, mouse, and rat reactive, and has no cross reactivity to IRAK2. **For research use only.**

STORAGE: IRAK antibody is supplied as purified IgG_1 in PBS containing 0.02% sodium azide. Store at 4˚C, stable for one year.



Western blot analysis of IRAK in HeLa lysates with IRAK antibody at (A) 1 and (B) 2 μg/ml.

RELATED PRODUCTS:

IRAK Recombinant Protein, Catalog No. **95-112**.
HeLa Cell lysate, Catalog No. **1201**.
IRAK Antibody (8F1A7), Catalog No. **PM-5317.**
IRAK Antibody, Catalog No. **1007.**
IRAK2 Antibody, Catalog No. **2123** & **2213.**
IRAK-M Antibody, Catalog No. **2355.**
IRAK-4 Antibody, Catalog No. **3125.**

REFERENCES:

1. Cao Z,; Henzel WJ, and Gao X. IRAK: a kinase associated with the interleukin-1 receptor. *Science* 1996; 271:1128-31.
2. Trofimova M, Sprenkle AB, Green M; et al. Developmental and tissue-specific expression of mouse pelle-like protein kinase. *J. Bio. Chem.* 1996; 271: 17609-12.
3. Jianing Huang, Xiong Gao, Shyun Li, et al. Recruitment of IRAK to the interleukin 1 receptor complex requires interleukin-1 receptor accessory protein. *Proc. Natl. Acad. Sci. USA* 1997; 94:12829-32.
4. Robinson D, Shibuya K, Mui A, et al. IGIF does not drive Th1 development but synergizes with IL-12 for interferon-gamma production and activates IRAK and NF-κB. *Immunity* 1997; 7:571-81.

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