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# IRAK2 Antibody

Catalog # ASC10351

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q8CFA1 |
| **Other Accession** | AAO24761, 37725373 |
| **Reactivity** | Mouse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 69047 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | IRAK2 antibody can be used for detection of mouse IRAK2 by Western blot at 0.5 - 2 □g/mL. |

## Additional Information

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| **Gene ID** | 108960 |
| **Other Names** | IRAK2 Antibody: IRAK-2, AI649099, 6330415L08Rik, Interleukin-1 receptor-associated kinase-like 2, IRAK-2, interleukin-1 receptor-associated kinase 2 |
| **Target/Specificity** | Irak2; Anti-IRAK2 has no cross response to IRAK. |
| **Reconstitution & Storage** | IRAK2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | IRAK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Irak2 |
| **Function** | Binds to the IL-1 type I receptor following IL-1 engagement, triggering intracellular signaling cascades leading to transcriptional up-regulation and mRNA stabilization. |
| **Tissue Location** | Ubiquitously expressed, with a higher expression observed in brain, spleen and liver. Isoform 1 and isoform 2 are considered agonist and isoform 3 and isoform 4 are considered antagonist |

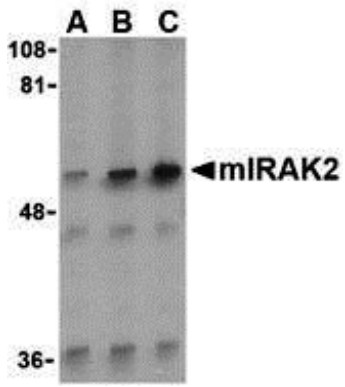
## Background

IRAK2 Antibody: The pro-inflammatory cytokine IL-1 induces cellular response through two subunits of its receptor, IL-1 receptor I (IL-1RI) and IL-1 receptor accessory protein (IL-1RAcP). IL-1 receptor-associated kinase (IRAK) mediates activation of NF-κB, which is a pivotal transcription factor mediating inflammatory and immune response. A novel member in the IRAK/Pelle family has been identified and designated IRAK2. Both IRAK and IRAK2 recruit to the subunits of the IL-1R complex after IL-1 binding and lead to NF-κB activation. IRAKs also associate with Toll like receptor (TLR) and the dominant negative mutants of IRAKs inhibit LPS-induced NF-κB activation. Members in IRAK/Pelle family play a central role in IL-1R and TLR mediated inflammatory response. Unlike human IRAK2, murine IRAK2 exists as four alternately spliced isoforms (IRAK2a-d), with two isoforms (IRAK2c and d) acting in an inhibitory fashion. IRAK2 is expressed in a variety of tissues.

## References

Muzio M, Ni J, Feng P, et al. IRAK (Pelle) family member IRAK-2 and MyD88 as proximal mediators of IL-1 signaling. Science 1997; 278:1612-5.
Zhang FX, Kirschning CJ, Mancinelli R, et al. Bacterial lipopolysaccharide activates nuclear factor-κB through interleukin-1 signaling mediators in cultured human dermal endothelial cells and mononuclear phagocytes. J. Biol. Chem. 1999; 274:7611-4.
Yang RB, Mark MR, Gurney AL, et al. Signaling events induced by lipopolysaccharide-activated toll-like receptor 2. J. Immunol. 1999; 163:639-43.
Hardy MP and O'Neill LAJ. The murine IRAK2 gene encodes four alternately spliced isoforms, two of which are inhibitory. J. Biol. Chem. 2004; 279:27699-708.

## Images




Western blot analysis of IRAK2 in A-20 whole cell lysate with IRAK2 antibody (C2) at (A) 0.5, (B) 1, and (C) 2 µg/mL.