

Product Information

Anti-IRAK2, (546-564)

produced in rabbit, affinity isolated antibody

Catalog Number **I1654**

Synonym: Anti- Interleukin-1 Receptor-Associated Kinase 2

Product Description

Anti-IRAK2 is produced in rabbit using a synthetic peptide corresponding to amino acids 546-564 of human IL-1 receptor-associated kinase 2 (IRAK2)¹ as immunogen.

Anti-IRAK2 recognizes human IRAK (65 kDa) by immunoblotting using HeLa or K562 cell lysates. No cross-reactivity is observed with IRAK.

A novel member of the IRAK /Pelle family has been identified and designated IRAK2. Members of this family play a central role in IL-1R1 and Toll-Like Receptor (TLR) mediated inflammatory/immune response, leading to the activation of NF- κ B.² Binding of the pro-inflammatory cytokine IL-1 to its receptors (IL-1R) leads to the association of IL-1R with the IL-1 receptor accessory protein (IL-1RAcP).^{3,4} An adapter protein, myeloid differentiation protein (MyD88), is then recruited to this complex and activated.^{5,6} MyD88 then recruits to the complex, two distinct putative serine-threonine kinases: IL-1 receptor-activated kinase (IRAK) and IRAK2.⁷ These kinases then interact with the adapter molecule, TNF receptor-associated factor 6 (TRAF6),^{8,9} which links them to the protein kinase NF κ B-inducing kinase (NIK).¹⁰ NIK activates the I κ B kinase complex (IKK α and IKK β) that directly phosphorylates I κ B.¹¹⁻¹³ The phosphorylation of I κ B initiates ubiquitin-proteasome-mediated degradation which subsequently activates transcription factor NF- κ B.^{14,15}

IRAKs are also known to associate with Toll like receptor (TLR) that plays a critical role in innate immunity against bacteria, and the dominant negative mutants of IRAKs inhibit lipopolysaccharide (LPS) induced NF- κ B activation.^{16,17} IRAK2 is expressed in a variety of human tissues.

Reagents

Supplied at ~0.5 mg/ml in phosphate buffered saline, containing 0.02% sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Antibody can be stored at 2-8 °C for three months and at -20 °C for 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.

Product Profile

Immunoblotting: the recommended working concentration is 0.5-1 μ g/ml using HeLa or K562 cell lysates. A band of 65 kDa is detected.

References

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