

PRODUCT INFORMATION



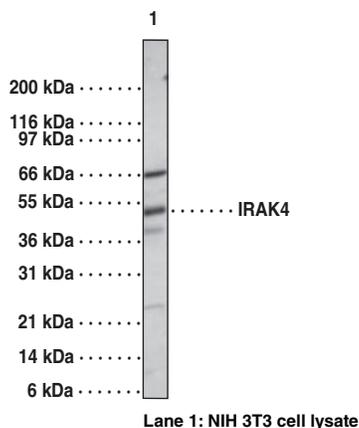
IRAK-4 Polyclonal Antibody

Item No. 13845

Overview and Properties

Contents:	This vial contains 100 µg protein G-purified antibody in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide
Synonym:	Interleukin-1 Receptor-Associated Kinase 4
Immunogen:	Synthetic peptide from a mixture of mouse IRAK-4 amino acids 38-54 and 120-136
Cross Reactivity:	(+) Human IRAK-4; (+) Mouse IRAK-4
Form:	Liquid
Storage:	4°C (as supplied)
Stability:	≥6 months
Host:	Rabbit
Isotype:	IgG
Applications:	Immunoprecipitation (IP) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for WB. IP and other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

The toll-like receptor (TLR) family in mammals comprises a family of transmembrane proteins characterized by multiple copies of leucine rich repeats in the extracellular domain and an interleukin-1 (IL-1) receptor motif in the cytoplasmic domain. Like its counterparts in *Drosophila*, TLRs signal through adaptor molecules.¹ Interleukin-1 receptor-associated kinases (IRAKs) are important mediators in the signal transduction of Toll/IL-1 receptor (TIR) family members.² The cytoplasmic domains of TIR proteins interact with the adapter protein, MyD88. MyD88 then recruits IRAKs (IRAK-1-4), which in turn interact with other adapter molecules, such as TRAF6 to activate NF- κ B and MAPK pathways. A member of this family, IRAK-4 has been identified.³ IRAK-4 may act as an upstream activator of IRAK-1. IRAK-4 is important for LPS activation of TLRs. Mice lacking IRAK-4 are resistant to lethal doses of LPS and are also severely impaired in their responses to viral and bacterial challenges.^{4,5}

References

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2. Cao, Z., Xiong, J., Takeuchi, M., *et al.* TRAF6 is a signal transducer for interleukin-1. *Nature* **383(6599)**, 443-446 (1996).
3. Li, S., Strelow, A., Fontana, E.J., *et al.* IRAK-4: A novel member of the IRAK family with the properties of an IRAK-kinase. *Proc. Natl. Acad. Sci. USA* **99(8)**, 5567-5572 (2002).
4. Suzuki, N., Suzuki, S., Duncan, G.S., *et al.* Severe impairment of interleukin-1 and toll-like receptor signalling in mice lacking IRAK-4. *Nature* **416(6882)**, 750-756 (2002).
5. Suzuki, N., Suzuki, S., and Yeh, W.-C. IRAK-4 as the central TIR signaling mediator in innate immunity. *Trends Immunol.* **23(10)**, 503-506 (2002).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
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FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
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