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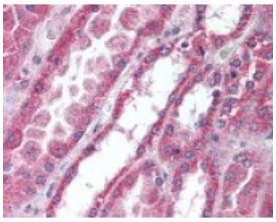
**ProSci Incorporated**
12170 Flint Place
Poway, CA 92064

**Toll Free:** +1 (888) 513 9525
**Local:** +1 (858) 513 2638
**Fax:** +1 (858) 513 2692

techsupport@prosci-inc.com

# IRAK4 Antibody

CATALOG NUMBER: 49-298



Immunohistochemistry staining of IRAK4 in kidney tissue using IRAK4 Antibody.

## Specifications

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|---|---|
| **SPECIES REACTIVITY:** | Human, Mouse |
| **TESTED APPLICATIONS:** | IHC, WB |
| **APPLICATIONS:** | IRAK4 antibody can be used in ELISA, Western Blot, and immunohistochemistry starting at 10 - 20 ug/mL. |
| **USER NOTE:** | Optimal dilutions for each application to be determined by the researcher. |
| **IMMUNOGEN:** | IRAK4 antibody was raised against amino acids 38 - 54 of IRAK4 (Mouse). |
| **HOST SPECIES:** | Rabbit |

## Properties

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|---|---|
| **PURIFICATION:** | Protein G Column |
| **PHYSICAL STATE:** | Liquid |
| **BUFFER:** | PBS, 0.05% BSA, 0.05% sodium azide. |
| **STORAGE CONDITIONS:** | IRAK4 antibody can be stored short term 4 ˚C. For long term storage aliquot and store at -20 ˚C. As with all antibodies avoid freeze/thaw cycles. |
| **CLONALITY:** | Polyclonal |
| **ISOTYPE:** | IgG |
| **CONJUGATE:** | Unconjugated |

## Additional Info

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|---|---|
| **ALTERNATE NAMES:** | IRAK4, IPD1, IRAK-4, NY-REN-64, REN64 |
| **ACCESSION NO.:** | Q9NWZ3 |
| **PROTEIN GI NO.:** | 50401181 |
| **OFFICIAL SYMBOL:** | IRAK4 |
| **GENE ID:** | 51135 |

## Background

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|---|---|
| **BACKGROUND:** | IL-1 receptor-associated kinases (IRAKs) are important mediators in the signal transduction of Toll/IL-1 receptor (TIR) family members. The cytoplasmic domains of TIR proteins interact with the adapter protein, MyD88. |

MyD88 then recruits IRAKs (IRAK-1, -2, and M), which in turn interact with other adapter molecules, such as TRAF6 to activate NF-κB and MAPK pathways. Recently, a new member of this family, IRAK-4 has been identified. 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). IRAK4, an IRAK type protein kinase, is a signal transducer for the immune response Toll-like receptor and interleukin-1 (IL-1) receptor signaling cascades. IRAK4 has auto- and cross-phosphorylation kinase activity and has been shown to phosphorylate and activate IRAK1. Additionally, IRAK4 interacts with IRAK1 and TRAF6 in an IL-1-dependent manner, and overexpression of IRAK4 can activate NF-kappaB as well as mitogen-activated protein (MAP) kinase pathways. IRAK4 (-/-) mice are resistant to a lethal dose of lipopolysaccharide and are severely impaired in their responses to viral and bacterial challenges. At least two mRNA transcripts have been reported: 3.0- and 4.4-kb. IRAK4, also referrred to as NY-REN-64, was first identified as an anitgen in a screen of renal tumors.



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