# IRAK1 ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified

# Catalog no. 700025

(See product label for lot information)

Clone/PAD:	19H32L12
Isotype:	lgG
Gene ID:	3654
Protein Acc. no.:	P51617
Qty:	100 µg
Volume:	200 µL
Concentration:	0.5 mg/mL

**Formulation** PBS + 0.09% sodium azide

Application For use in Western Blotting

Reactivity This antibody is specific for human IRAK1

Immunogen Peptide corresponding to amino acids 579–591 of human IRAK1

Immunogen sequence RGPNQPVESDES

Sequence Identity Human

Sequence Homology Mouse

#### **Expected Reactivity**

Based on sequence identity and similarity, reactivity to Human and Mouse are predicted.

#### Storage

2–8°C for up to 1 month, –20°C for long term storage. Avoid repeated freezing and thawing.

## **Expiration Date**

Expires one year from date of receipt when stored as instructed.

# Background

The interleukin-1 receptor associated kinases (IRAKs) are critically involved in the IL-1R/Toll-like receptor (TLR)-mediated signal transduction processes and therefore regulate cellular innate immune responses. (1,2). IRAK1 upon stimulation is partially responsible for IL1-induced upregulation of the transcription factor NF-kappa B (3). On phosphorylation, IRAK1 recruits the adapter protein PELI1 (4).

#### References

- 1. Cao Z, Henzel WJ, Gao X. (1996). IRAK: a kinase associated with the interleukin-1 receptor. Science. 23; 271(5252):1128-31.
- Wesche, H; Gao X, Li X, Kirschning C J, Stark G R, Cao Z (1999). IRAK-M is a novel member of the Pelle/interleukin-1 receptorassociated kinase (IRAK) family. Journal of Biological Chemistry. (United States) 274 (27): 19403–10.
- Chen, Bing-Chang; Wu Wen-Tung, Ho Feng-Ming, Lin Wan-Wan (2002). nhibition of interleukin-1beta -induced NF-kappa B activation by calcium/calmodulin-dependent protein kinase kinase occurs through Akt activation associated with interleukin-1 receptor-associated kinase phosphorylation and uncoupling of MyD88. Journal of Biological Chemistry. (United States) 277 (27): 24169–79.
- Jiang Z, Johnson HJ, Nie H, et al. (2003). Pellino 1 is required for interleukin-1 (IL-1)-mediated signaling through its interaction with the IL-1 receptor-associated kinase 4 (IRAK4)-IRAK-tumor necrosis factor receptor-associated factor 6 (TRAF6) complex. Journal of Biological Chemistry. 278 (13): 10952–6.

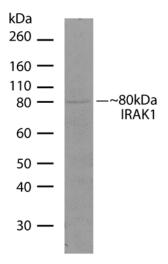
## **Applications:**

	Species	Test Material	Concentration
Western Blotting	Human	HEK	4–5 μg/mL

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#### Western Blot of IRAK1 labeled with IRAK1 Rabbit Recombinant Monoclonal Antibody (Cat. no. 700025).

IRAK1 Recombinant Rabbit Monoclonal Antibody (5  $\mu$ g/mL) was used to detect IRAK1 in HEK Cell Lysate (30  $\mu$ g/lane). The western was performed using the WesternBreeze<sup>®</sup> kit with NBT/BCIP as the substrate (Cat. no. WB7105).

	Explanation of symbols				
Symbol	Description	Symbol	Description		
REF	Catalogue Number	LOT	Batch code		
RUO	Research Use Only	IVD	In vitro diagnostic medical device		
X	Use by	ł	Temperature limitation		
***	Manufacturer	EC REP	European Community authorised representative		
[-]	Without, does not contain	[+]	With, contains		
from Light	Protect from light	Â	Consult accompanying documents		
i	Directs the user to consult instructions for use (IFU), accompanying the product.				

#### Explanation of symbols

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