

# IHC*easy* IRAK1 Ready-To-Use IHC Kit

Catalog Number: **KHC2304**

## General Information

Sample type:  
FFPE tissue  
Cited sample type:  
Reactivity:  
Human, Mouse, Rat  
Cited Reactivity:

Assay type:  
Immunohistochemistry  
Primary antibody type:  
Rabbit Polyclonal  
Secondary antibody type:  
Polymer-HRP-Goat anti-Rabbit

## Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL ×2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

## Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

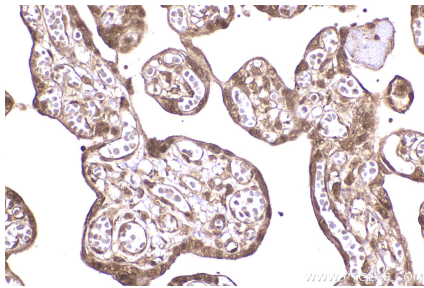
## Background

Interleukin-1 receptor-associated kinases (IRAKs) are a unique family of death domain containing protein kinases that play a key role in initiating innate immune response against foreign pathogens. They are involved in Toll-like receptor (TLR) and interleukin-1 receptor (IL-1R) signaling pathways. IRAK1 is the first member of this kinase family. Upon ligand binding to TLR/IL-1R, IRAK1 is recruited by MYD88 to the receptor-signaling complex, the association leads to IRAK1 phosphorylation by IRAK4 and subsequent autophosphorylation and kinase activation. Hyper-phosphorylated IRAK1 then disengages from the receptor complex, and forms a cytosolic IRAK1-TRAF6 complex. TRAF6 then interacts with TAK and TAB, resulting in eventual activation of the NF- $\kappa$ B and MAPK pathways. Phosphorylated IRAK1 also undergoes ubiquitin-mediated degradation or sumoylation, which results in nuclear translocation and transcriptional activation of inflammatory target genes.

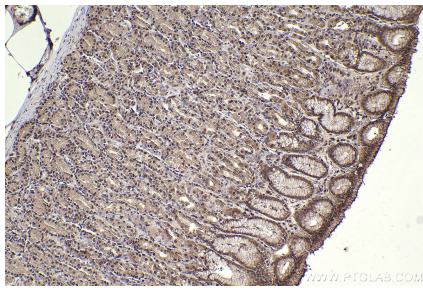
## Synonyms

pelle, IRAK-1, IRAK 1, IRAK, Interleukin-1 receptor-associated kinase 1

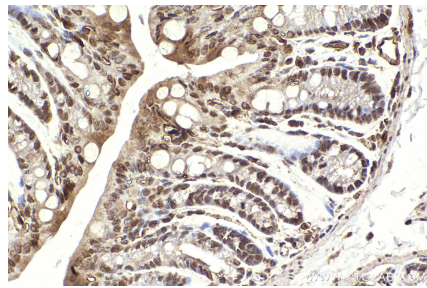
## Selected Validation Data



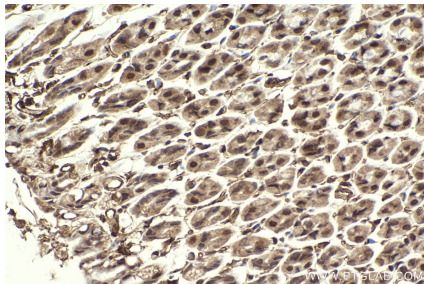
Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using KHC2304 (IRAK1 IHC Kit).



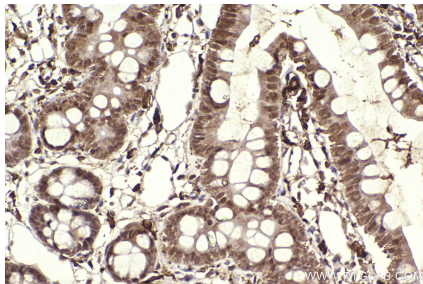
Immunohistochemical analysis of paraffin-embedded human stomach tissue slide using KHC2304 (IRAK1 IHC Kit).



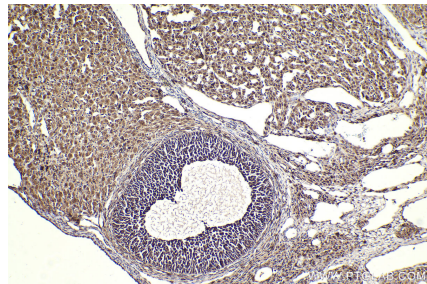
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using KHC2304 (IRAK1 IHC Kit).



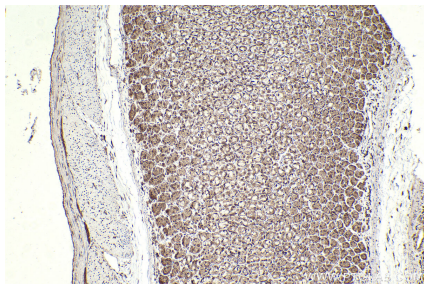
Immunohistochemical analysis of paraffin-embedded mouse stomach tissue slide using KHC2304 (IRAK1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat intestine tissue slide using KHC2304 (IRAK1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat ovary tissue slide using KHC2304 (IRAK1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using KHC2304 (IRAK1 IHC Kit).