For Research Use Only

## IRAK1 Monoclonal antibody, PBS Only proteintech

Catalog Number: 66653-1-PBS

**Featured Product** 



**Purification Method:** 

Protein A purification

CloneNo.:

1H10A7

**Basic Information** 

Catalog Number:

66653-1-PBS

Size: 1 mg/ml Source:

Mouse Isotype: IgG2a

Immunogen Catalog Number:

AG0728

WB,Indirect ELISA,IHC Species Specificity:

**Tested Applications:** 

GenBank Accession Number:

BC014963 GeneID (NCBI):

3654 **UNIPROT ID:** 

P51617 Full Name:

interleukin-1 receptor-associated

kinase 1

Calculated MW: 77 kDa

Observed MW: 80 kDa

**Background Information** 

Interleukin-1 receptor-associated kinases (IRAKs) are a unique family of death domain containing protein kinases  $that play \ a \ key \ role \ in \ initiating \ innate \ immune \ response \ against \ for eign \ pathogens. \ They \ are \ involved \ in \ Toll-like$ 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. Hyperphosphorylated 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. (PMID: 17890055; 12620219)

Storage

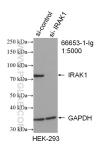
**Applications** 

Storage:

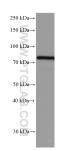
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C Storage Buffer:

PBS Only

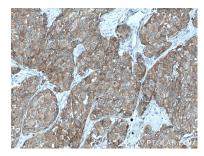
## **Selected Validation Data**



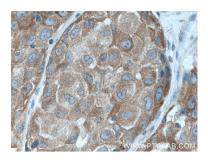
WB result of IRAK1 antibody (66653-1-1g; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-IRAK1 transfected HEK-293 cells. This data was developed using the same antibody clone with 66653-1-PBS in a different storage buffer formulation.



HeLa cells were subjected to SDS PAGE followed by western blot with 66653-1-1g (IRAK1 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 66653-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded human lung cancer tissue slide using 66653-1-lg (IRAK1 antibody) at dilution of 1:500 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66653-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded human lung cancer tissue slide using 66653-1-lg (IRAK1 antibody) at dilution of 1:500 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 66653-1-PBS in a different storage buffer formulation.