

For Research Use Only

# ERBB4 Polyclonal antibody

Catalog Number: 19943-1-AP **18 Publications**



## Basic Information

<b>Catalog Number:</b> 19943-1-AP	<b>GenBank Accession Number:</b> NM_001042599	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 700 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 2066	<b>Recommended Dilutions:</b> WB 1:200-1:1000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q15303	
<b>Isotype:</b> IgG	<b>Full Name:</b> v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)	
	<b>Calculated MW:</b> 147 kDa	
	<b>Observed MW:</b> 180 kDa, 147 kDa	

## Applications

<b>Tested Applications:</b> WB, IHC, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB, IHC, IF	<b>WB :</b> mouse brain tissue, MCF-7 cells, rat brain tissue
<b>Species Specificity:</b> human, mouse, rat	<b>IHC :</b> mouse lung tissue, human kidney tissue
<b>Cited Species:</b> human, mouse, pig	

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

ERBB4, also named p180erbB4 and HER4, belongs to the protein kinase superfamily, Tyr protein kinase family, and EGF receptor subfamily. ERBB4 specifically binds and it is activated by neuregulins, NRG-2, NRG-3, heparin-binding EGF-like growth factor, betacellulin, and NTAK. Interaction with these factors induces cell differentiation. ERBB4 is not activated by EGF, TGF- $\alpha$ , and amphiregulin. ERBB4 catalyzes the reaction: ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate. The antibody recognizes the C-term of ERBB4. Alternatively spliced variants that encode different protein isoforms with a calculated molecular weight of 144-147 kDa have been described. The apparent molecular weight of full-length ERBB4 is 150-200 kDa due to glycosylation and phosphorylation. Full-length ERBB4 can be cleaved into an 80-kDa ERBB4 intracellular fragment and a 120-kDa extracellular fragment (PMID: 11343971; 16251361).

## Notable Publications

Author	Pubmed ID	Journal	Application
Hongbing Li	31556771	Acta Otolaryngol	IHC
Xiao-Pei Yang	27756321	J Neuroinflammation	WB
Shi Liu	33021020	Kaohsiung J Med Sci	WB

## Storage

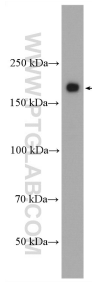
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol, pH7.3  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

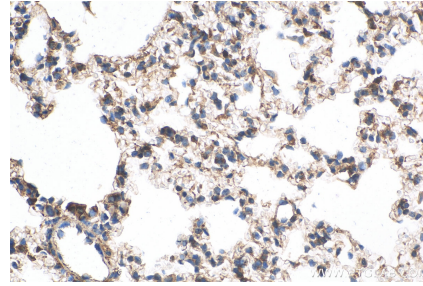
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

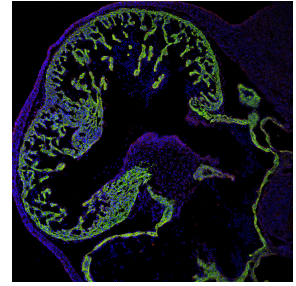
## Selected Validation Data



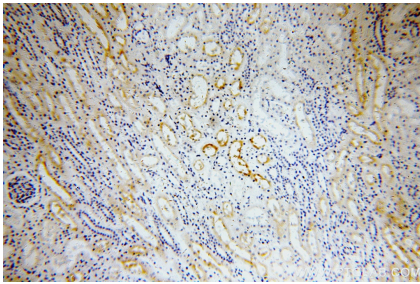
mouse brain tissue were subjected to SDS PAGE followed by western blot with 19943-1-AP (ERBB4 antibody) at dilution of 1:300 incubated at room temperature for 1.5 hours.



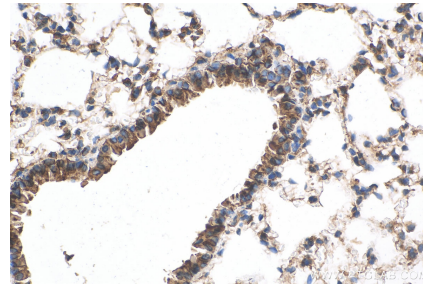
Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 19943-1-AP (ERBB4 antibody) at dilution of 1:100 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Frozen tissue section of embryonic mouse heart (E12.5) was stained for cardiac troponin-T/cTnT (green) and ErbB4 (red, Cat. No 19943-1-AP) with DAPI as a counterstain for visualizing the nucleus (blue). cTnT stains cardiomyocytes and was visualized with an Alexa Fluor 488 secondary antibody. ErbB4 is a key member of ErbB signaling and involved in development and was visualized with an Alexa Fluor 555 secondary antibody. The Image and figure legends are



Immunohistochemical analysis of paraffin-embedded human kidney using 19943-1-AP (ERBB4 antibody) at dilution of 1:100 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 19943-1-AP (ERBB4 antibody) at dilution of 1:100 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).