

For Research Use Only

# PDK4 Recombinant antibody

Catalog Number: 83583-1-RR



## Basic Information

<b>Catalog Number:</b> 83583-1-RR	<b>GenBank Accession Number:</b> BC040239	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5166	<b>CloneNo.:</b> 240551E4
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q16654	<b>Recommended Dilutions:</b> WB 1:2000-1:10000 IHC 1:250-1:1000
<b>Isotype:</b> IgG	<b>Full Name:</b> pyruvate dehydrogenase kinase, isozyme 4	
<b>Immunogen Catalog Number:</b> AG3629	<b>Calculated MW:</b> 411 aa, 46 kDa	
	<b>Observed MW:</b> 46 kDa	

## Applications

**Tested Applications:**  
WB, IHC, FC (Intra), ELISA

**Species Specificity:**  
human, mouse

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

**Positive Controls:**

**WB :** mouse kidney tissue, mouse lung tissue

**IHC :** mouse skeletal muscle tissue, mouse kidney tissue

## Background Information

Pyruvate dehydrogenase kinase isoform4 (PDK4) is also named as PDHK4 and belongs to the PDK/BCKDK protein kinase family. It is upregulated by starvation in many tissues of the body during starvation. This causes inactivation of the pyruvate dehydrogenase complex which blocks pyruvate oxidation and conserves lactate and alanine for gluconeogenesis. Enhanced PDK4 expression may be caused by the increase in free fatty acids that occurs during starvation. Free fatty acids can activate peroxisome proliferator-activated receptor  $\alpha$  (PPAR $\alpha$ ), and activation of PPAR $\alpha$  can promote PDK4 expression (PMID: 11554740).

## Storage

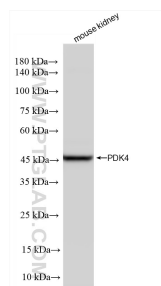
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

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

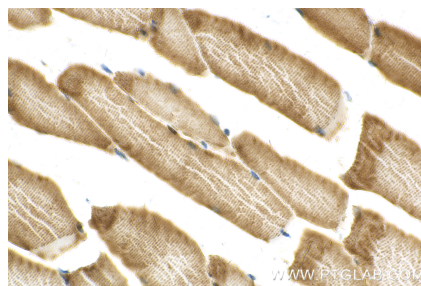
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

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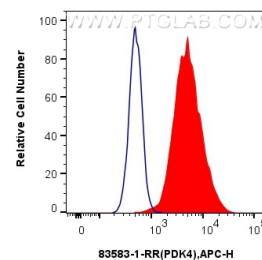
## Selected Validation Data



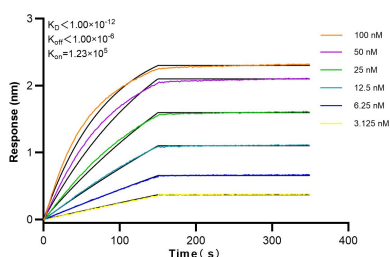
mouse kidney tissue were subjected to SDS PAGE followed by western blot with 83583-1-RR (PDK4 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 83583-1-RR (PDK4 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.25  $\mu$ g PDK4 Recombinant antibody (83583-1-RR, Clone:240551E4) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25  $\mu$ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 83583-1-RR against Human PDK4 were performed. The affinity constant is below 1 pM.