

# TMEM27 Polyclonal antibody

Catalog Number: 19207-1-AP

## Basic Information

<b>Catalog Number:</b> 19207-1-AP	<b>GenBank Accession Number:</b> BC050606	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 160 µg/ml	<b>GeneID (NCBI):</b> 57393	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IHC 1:100-1:400 IF 1:10-1:100
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q9HBJ8	
<b>Isotype:</b> IgG	<b>Full Name:</b> transmembrane protein 27	
<b>Immunogen Catalog Number:</b> AG7668	<b>Calculated MW:</b> 25 kDa	
	<b>Observed MW:</b> 32 kDa	

## Applications

**Tested Applications:**  
IF/ICC, IHC, WB, 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 pancreas tissue, mouse kidney tissue

**IHC :** human kidney tissue, human liver cancer tissue

**IF :** HepG2 cells,

## Background Information

TMEM27 (also termed collectrin), a 46 kDa type I transmembrane protein, is a homolog of the noncatalytic domain of angiotensin-converting enzyme-related carboxypeptidase (Ace2). Its expression has only been reported in the brush border membrane of the proximal tubules and collecting ducts of the kidney and in the pancreatic b cell (PMID: 11278314, 16330324). Overexpression of TMEM27 in b cells leads to increased proliferation in vitro and increased pancreatic b cell mass in vivo, and also has been reported to augment glucosestimulated ins secretion (GSIS) (PMID: 16330324, 16330323). The abundance of TMEM27 protein in b cells is furthermore regulated by ectodomain cleavage, which leads to two cleavage products, a 25 kDa N-terminal part that is released into the extracellular space (the shed fragment), and a 22 kDa C-terminal fragment (CTF) remaining in the membrane that is rapidly degraded (PMID: 16330324). TMEM27 is an N-glycosylated protein and can form dimers with MW of 64-75 kDa (patent US 20100119489 A1). TMEM27 can be used as a beta cell mass biomarker (PMID: 20386877, 21907142).

## Storage

**Storage:**

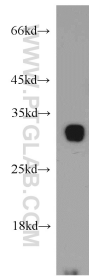
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

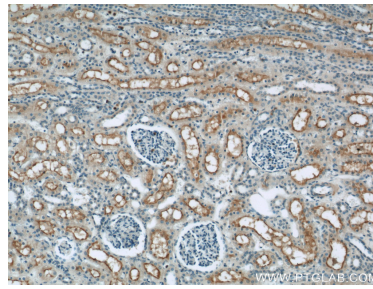
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

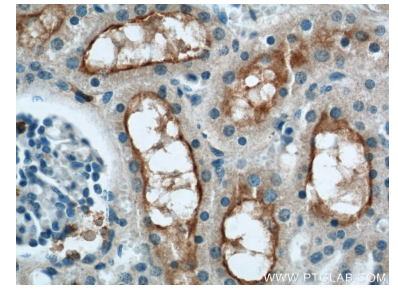
## Selected Validation Data



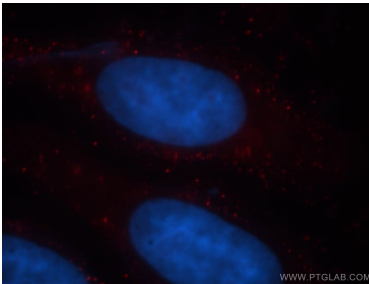
mouse pancreas tissue were subjected to SDS PAGE followed by western blot with 19207-1-AP (TMEM27 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human kidney using 19207-1-AP (TMEM27 antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human kidney using 19207-1-AP (TMEM27 antibody) at dilution of 1:50 (under 40x lens).



Immunofluorescent analysis of HepG2 cells, using TMEM27 antibody 19207-1-AP at 1:25 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).