

Basic Information

Product Name	Anti-TRPV5 Antibody
Gene Name	TRPV5
Source	Rabbit
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	500 ug/ml antibody with PBS , 0.02% Na ₃ N , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human TRPV5 (580-610aa DTHWRVAQERDELWRAQVVATTVMLEKLPK), different from the related mouse and rat sequences by one amino acid.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	83KD
Dilution Ratios	Western blot(WB):1:500-2000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Transient receptor potential cation channel subfamily V member 5 is a protein that in humans is encoded by the TRPV5 gene. This gene is a member of the transient receptor family and the TrpV subfamily. The calcium-selective channel encoded by this gene has 6 transmembrane-spanning domains, multiple potential phosphorylation sites, an N-linked glycosylation site, and 5 ANK repeats. And this protein forms homotetramers or heterotetramers and is activated by a low internal calcium level. In addition, TRPV5 is mainly expressed in kidney epithelial cells, where it plays an important role in the reabsorption of Ca²⁺. Genetic deletion of TRPV5 in mice leads to Ca²⁺ loss in the urine, and consequential hyperparathyroidism, and bone loss.

Selected Validation Data

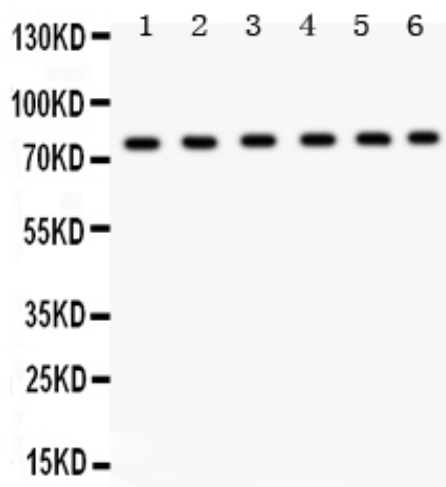


Figure 1. Western blot analysis of TRPV5 using anti-TRPV5 antibody (PB0549). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Pancreas Tissue Lysate, Lane 2: Rat Lung Tissue Lysate, Lane 3: Rat Intestine Tissue Lysate, Lane 4: SW620 Whole Cell Lysate, Lane 5: COLO320 Whole Cell Lysate, Lane 6: 293T Whole Cell Lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRPV5 antigen affinity purified polyclonal antibody (Catalog # PB0549) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TRPV5 at approximately 83KD. The expected band size for TRPV5 is at 83KD.