

Basic Information

Product Name	Anti-TRPV5 Antibody	
Gene Name	TRPV5	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	IHC, FCM, WB, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human TRPV5 recombinant protein (Position: Q14-Q74+H636-F729).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	83 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

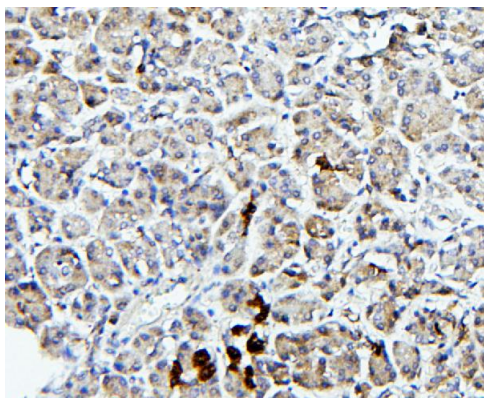
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

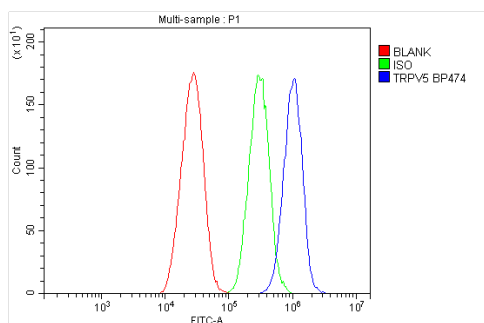
Transient receptor potential cation channel subfamily V member 5 is a protein that in humans is encoded by the TRPV5 gene. This gene is a member of the transient receptor family and the TrpV subfamily. The calcium-selective channel encoded by this gene has 6 transmembrane-spanning domains, multiple potential 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



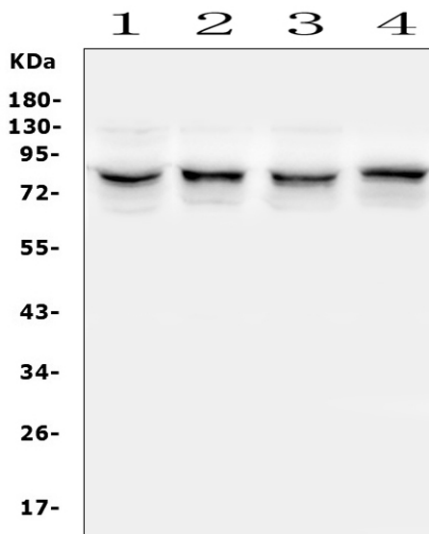
IHC analysis of TRPV5 using anti-TRPV5 antibody (A03218-1).

TRPV5 was detected in a paraffin-embedded section of human pancreatic cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-TRPV5 Antibody (A03218-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of HepG2 cells using anti-TRPV5 antibody (A03218-1).

Overlay histogram showing HepG2 cells stained with A03218-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TRPV5 Antibody (A03218-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of TRPV5 using anti-TRPV5 antibody (A03218-1).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: monkey COS-7 whole cell lysates,

Lane 2: human U-87MG whole cell lysates,

Lane 3: human Hela whole cell lysates,

Lane 4: human HepG2 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-TRPV5 antigen affinity purified polyclonal antibody (A03218-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for TRPV5 at approximately 83 kDa. The expected band size for TRPV5 is at 83 kDa.