

## Basic Information

Product Name	Anti-TRPV3 Antibody	
Gene Name	TRPV3	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human TRPV3 recombinant protein (Position: E28-V790).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	100 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.	

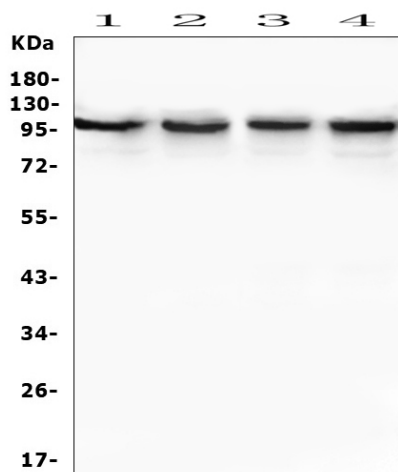
## Storage

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

## Background Information

TRPV3 (Transient Receptor Potential Cation Channel Subfamily V Member 3), also known as VRL3, is a human gene encoding the protein of the same name. The TRPV3 protein belongs to a family of nonselective cation channels that function in a variety of processes, including temperature sensation and vasoregulation. Peier et al. localized the TRPV3 gene to a BAC clone mapped to chromosome 17p13. They mapped the mouse gene to chromosome 11B4. Peier et al. stably expressed mouse Trpv3 in Chinese hamster ovary cells and assayed electrophysiologic activity by whole cell voltage-clamp techniques. They determined that Trpv3 is a cation-permeable channel activated by warm and hot temperatures. Xu et al. showed that increasing temperature from approximately 22 to 40 degrees Celsius in mammalian cells transfected with human TRPV3 elevated intracellular calcium by activating a nonselective cationic conductance.

## Selected Validation Data



Western blot analysis of TRPV3 using anti-TRPV3 antibody (A03874-1).

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

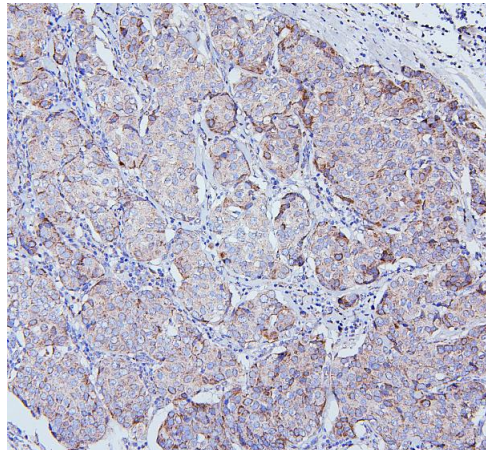
Lane 1: human MDA-MB-453 whole cell lysates,

Lane 2: human Caco-2 whole cell lysates,

Lane 3: human PC-3 whole cell lysates,

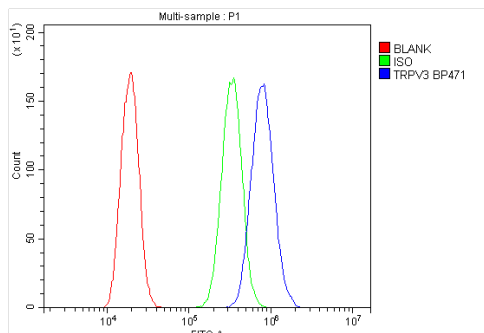
Lane 4: human Hela whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-TRPV3 antigen affinity purified polyclonal antibody (A03874-1) 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 TRPV3 at approximately 100 kDa. The expected band size for TRPV3 is at 91 kDa.



IHC analysis of TRPV3 using anti-TRPV3 antibody (A03874-1).

TRPV3 was detected in a paraffin-embedded section of human mammary cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-TRPV3 Antibody (A03874-1) 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 A431 cells using anti-TRPV3 antibody (A03874-1).

Overlay histogram showing A431 cells stained with A03874-1 (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-TRPV3 Antibody (A03874-1) 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.