

Basic Information

Product Name	Anti-TRPV3 Antibody	
Gene Name	TRPV3	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IHC-F, ICC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg 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	100KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunohistochemistry in frozen section: 1:50-400 Immunocytochemistry in fixed cells: 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells (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

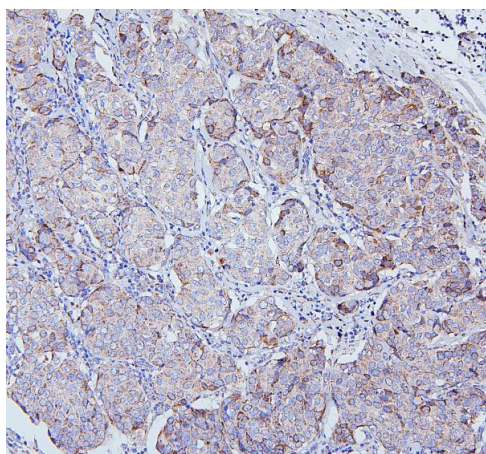


Figure 1. IHC analysis of TRPV3 using anti-TRPV3 antibody (A03874-1).

TRPV3 was detected in paraffin-embedded section of human mammary cancer tissues. anti-TRPV3 Antibody (A03874-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

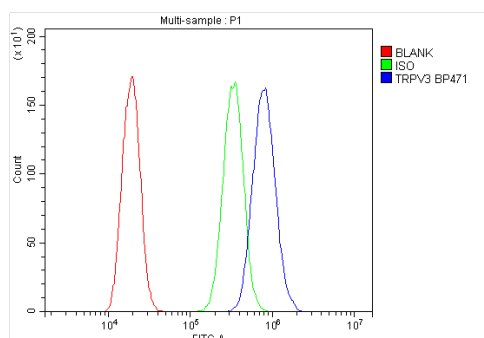


Figure 3. Flow Cytometry analysis of A431 cells using anti-TRPV3 antibody (A03874-1).

Overlay histogram showing A431 cells stained with A03874-1 (Blue line). DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/1x10⁶ cells) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

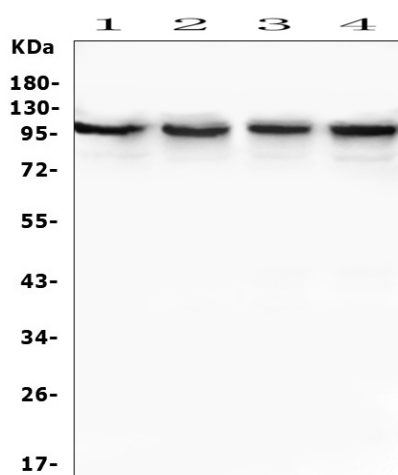


Figure 5. Western blot analysis of TRPV3 using anti-TRPV3 antibody (A03874-1).

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.

probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for TRPV3 at approximately 100KD. The expected band size for TRPV3 is at 91KD.