

Anti-TRPM2 Antibody

HA500437



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, FC
Molecular Wt:	Predicted band size: 171 kDa

Description: Transient receptor potential cation channel, subfamily M, member 2, also known as TRPM2, is a protein that in humans is encoded by the TRPM2 gene. The TRPM2 gene is highly expressed in the brain and was implicated by both genetic linkage studies in families and then by case control or trio allelic association studies in the genetic aetiology of bipolar affective disorder (Manic Depression). The physiological role of TRPM2 is not well understood. It was shown to be involved in insulin secretion.[5][11] In the immune cells it mediates parts of the responses to TNF-alpha. A role has been suggested for TRPM2 in activation of NLRP3 inflammasome, the dysregulation of which is strongly associated with a number of auto inflammatory and metabolic diseases, such as gout, obesity and diabetes.[13] In the brain it is involved in the toxicity of amyloid beta, a protein associated with Alzheimer's disease.[14] In 2016, TRPM2 channel was strongly implicated in the detection of non-painful warm stimuli. Chun-Hsiang Tan and Peter McNaughton studied the responses of actual sensory neurons to thermal stimuli, then used an RNA-sequencing strategy to identify TRPM2 as genetically required for warmth detection in the non-noxious range of 33–38 °C.

Immunogen: Synthetic peptide within mouse TRPM2 aa 100-150 / 1503 (Cytoplasmic).

Positive control: THP-1 cell lysate, HepG2 cell lysate, SH-SY5Y cell lysate, SH-SY5Y.

Subcellular location: Lysosome, cell membrane, perikaryon, cell projection, cytoplasmic vesicle.

Database links: SwissProt: O94759 Human | Q91YD4 Mouse | Q5G856 Rat

Recommended Dilutions:

WB	1:500-1:1,000
FC	1:100-1:500

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

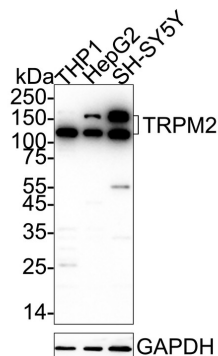
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of TRPM2 on different lysates with Rabbit anti-TRPM2 antibody (HA500437) at 1/1,000 dilution.

Lane 1: THP-1 cell lysate
Lane 2: HepG2 cell lysate
Lane 3: SH-SY5Y cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 171 kDa
Observed band size: 171/120 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500437) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

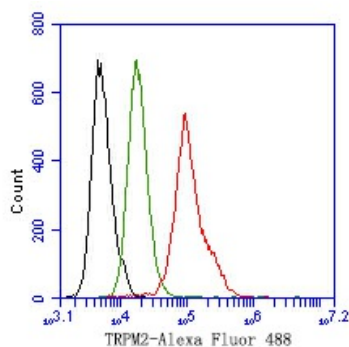


Fig2: Flow cytometric analysis of TRPM2 was done on SH-SY5Y cells. The cells were fixed, permeabilized and stained with the primary antibody (HA500437, 1µg/ml) (red) compared with Rabbit IgG, monoclonal - Isotype Control (green). After incubation of the primary antibody at +4°C for 1 hour, the cells were stained with a Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG Secondary antibody at 1/1,000 dilution for 30 minutes at +4°C (dark incubation). Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Fliegert R. et. al. 2'-Deoxyadenosine 5'-diphosphoribose is an endogenous TRPM2 superagonist. Nat Chem Biol. 2017 Sep

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