

Anti-Calretinin Antibody [PSH08-29]

HA601369



Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	WB, IHC-P, IHC-Fr, IF-Tissue, IP, mIHC
Molecular Wt:	Predicted band size: 32 kDa
Clone number:	PSH08-29

Description: Calretinin, also known as calbindin 2 (formerly 29 kDa calbindin), is a calcium-binding protein involved in calcium signaling. In humans, the calretinin protein is encoded by the CALB2 gene. This gene encodes an intracellular calcium-binding protein belonging to the troponin C superfamily. Members of this protein family have six EF-hand domains which bind calcium. This protein plays a role in diverse cellular functions, including message targeting and intracellular calcium buffering. Calretinin is abundantly expressed in neurons including retina (which gave it the name) and cortical interneurons. Expression was found in different neurons than that of the similar vitamin D-dependent calcium-binding protein, calbindin-28kDa. Calretinin has an important role as a modulator of neuronal excitability including the induction of long-term potentiation. Loss of expression of calretinin in hippocampal interneurons has been suggested to be relevant in temporal lobe epilepsy. It is expressed in a number of other locations including hair follicles.

Immunogen: Recombinant protein within human Calretinin aa 1-200.

Positive control: Mouse brain tissue lysate, Mouse colon tissue lysate, Rat brain tissue lysate, Rat colon tissue lysate, mouse brain tissue, rat brain tissue.

Subcellular location: Cytosol, dendrite, gap junction, nucleus, parallel fiber to Purkinje cell synapse, synapse, terminal bouton.

Database links: SwissProt: Q08331 Mouse | P47728 Rat

Recommended Dilutions:

WB	1:2,000
IHC-P	1:200-1:1,000
IHC-Fr	1:500
IF-Tissue	1:500
mIHC	1:1,000
IP	1-2µg/sample

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

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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

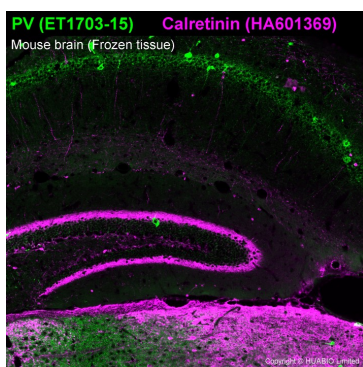


Fig1: mlHC analysis of mouse brain tissue (Frozen section) with Calretinin (HA601369, 1/1,000) and antibody PV (ET1703-15, 1/50,000).

The immunostaining was performed with the IRISKitCmTSA Kit (900802). Blocking with 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

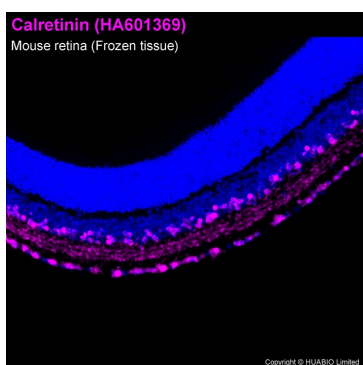
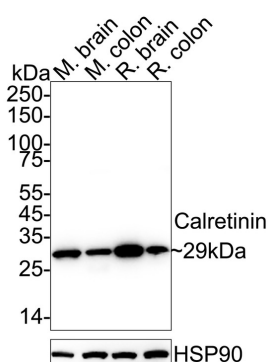


Fig2: mlHC analysis of mouse retina tissue (Frozen section) with Calretinin (HA601369, 1/1,000).

The immunostaining was performed with the IRISKitCmTSA Kit (900802). Blocking with 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

Fig3: Western blot analysis of Calretinin on different lysates with Mouse anti-Calretinin antibody (HA601369) at 1/2,000 dilution.



Lane 1: Mouse brain tissue lysate (20 µg/Lane)
Lane 2: Mouse colon tissue lysate (20 µg/Lane)
Lane 3: Rat brain tissue lysate (20 µg/Lane)
Lane 4: Rat colon tissue lysate (20 µg/Lane)

Predicted band size: 32 kDa
Observed band size: 29 kDa

Exposure time: 10 seconds; 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 (HA601369) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

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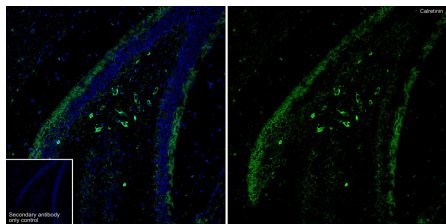


Fig4: Application: IHC-Fr

Species: Mouse
Site: Hippocampus
Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

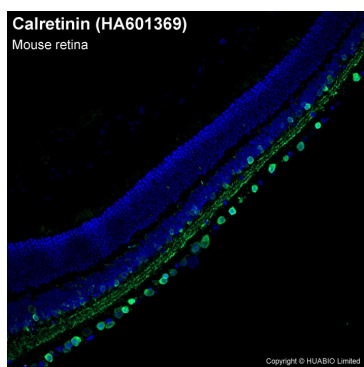


Fig5: Application: IHC-Fr

Species: Mouse
Site: Retina
Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

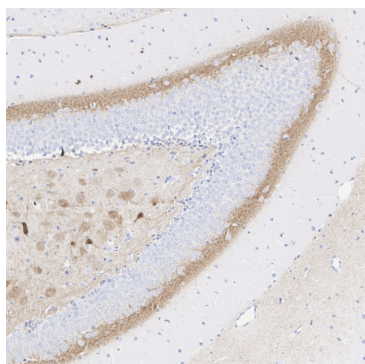


Fig6: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Mouse anti-Calretinin antibody (HA601369) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601369) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

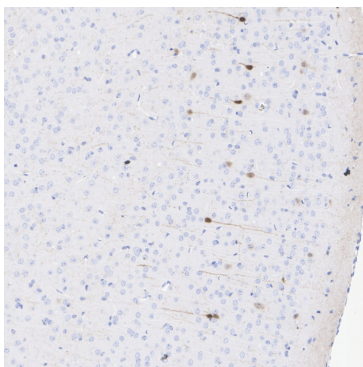


Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Mouse anti-Calretinin antibody (HA601369) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601369) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

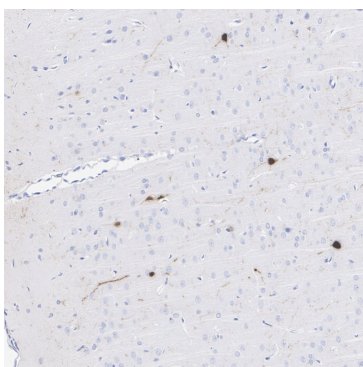


Fig8: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Mouse anti-Calretinin antibody (HA601369) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA601369) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

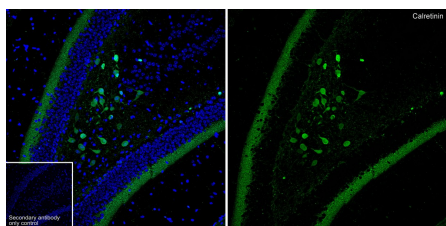


Fig9: Application: IF-tissue

Species: Mouse

Site: Hippocampus

Sample: Paraffin-embedded section

Antibody concentration: 1/500

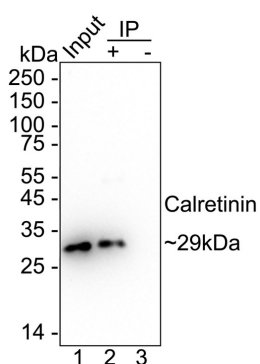


Fig10: Calretinin was immunoprecipitated from 0.2 mg mouse brain tissue lysate with HA601369 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA601369 at 1/2,000 dilution. Anti-Mouse IgG for IP, AlpSdAbs® VHH(HRP) (001-100-005) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: Mouse brain tissue lysate (input)

Lane 2: HA601369 IP in mouse brain tissue lysate

Lane 3: Mouse IgG instead of HA601369 in mouse brain tissue lysate

Blocking/Dilution buffer: Primary Antibody Dilution

Exposure time: 40 seconds; ECL: K1801

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

Background References

1. Francavilla C et al. Phosphoproteomics of Primary Cells Reveals Druggable Kinase Signatures in Ovarian Cancer. Cell Rep 18:3242-3256 (2017).
2. McMahon SM et al. Multiple cytosolic calcium buffers in posterior pituitary nerve terminals. J Gen Physiol 147:243-54 (2016).

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