

Parvalbumin Recombinant Antibody [JM100-08] - Rat IgG1 (Chimeric)

HA601643



Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-Fr, IHC-P
Molecular Wt:	Predicted band size: 12 kDa
Clone number:	JM100-08

Description: Parvalbumin (PV) is a calcium-binding protein with low molecular weight (typically 9-11 kDa). In humans, it is encoded by the PVALB gene. It is not a member of the albumin family; it is named for its size (parv-, from Latin parvus small) and its ability to coagulate. It has three EF hand motifs and is structurally related to calmodulin and troponin C. Parvalbumin is found in fast-contracting muscles, where its levels are highest, as well as in the brain and some endocrine tissues. Parvalbumin is a small, stable protein containing EF-hand type calcium binding sites. It is involved in calcium signaling. Calcium binding proteins like parvalbumin play a role in many physiological processes, namely cell-cycle regulation, second messenger production, muscle contraction, organization of microtubules and phototransduction. Therefore, calcium-binding proteins must distinguish calcium in the presence of high concentrations of other metal ions. The mechanism for the calcium selectivity has been extensively studied.

Immunogen: Recombinant protein within Human Parvalbumin aa 1-110 / 110.

Positive control: RPMI8226 (Human multiple myeloma cell) cell lysate, Mouse skeletal muscle tissue lysate, rat skeletal muscle cell lysates.

Subcellular location: Axon, cytoplasm, synapse.

Database links: SwissProt: P20472 Human | P32848 Mouse | P02625 Rat

Recommended Dilutions:

WB	1:5,000
IHC-Fr	1:500
IHC-P	1:5,000

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

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

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

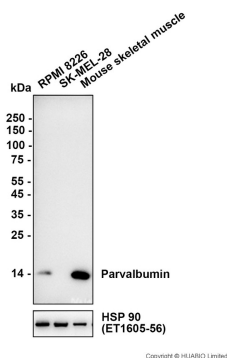
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of Parvalbumin on different lysates with Rat anti-Parvalbumin antibody (HA601643) at 1/5,000 dilution.

Lane 1: RPMI8226 (Human multiple myeloma cell) cell lysate
Lane 2: SK-MEL-28 (Human malignant melanoma cell) cell lysate
Lane 3: Mouse skeletal muscle tissue lysate



Lysates/proteins at 15 µg/Lane.

Exposure time: 3 minutes; ECL: K1801

Negative expression of Parvalbumin protein in SK-MEL-28 cell is consistent with the predicted expression pattern.

Blocking: 5% NFDM/TBST, 1 hour at room temperature

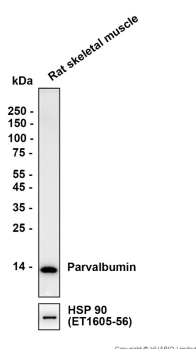
Primary antibody: HA601643, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C

Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 12 kDa

Observed band size: 12 kDa

Fig2: Western blot analysis of Parvalbumin on rat skeletal muscle cell lysate with Rat anti-Parvalbumin antibody (HA601643) at 1/5,000 dilution.



Lysates/proteins at 15 µg/Lane.

Exposure time: 3 minutes; ECL: K1801

Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary antibody: HA601643, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C

Secondary antibody: Goat anti-Rat IgG-HRP (HA1023), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

Predicted band size: 12 kDa

Observed band size: 12 kDa

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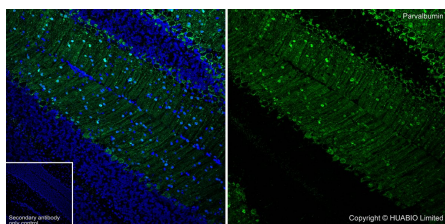


Fig3: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: Cerebellum
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST
Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.

Primary antibody: HA601643, 1/500, overnight at 4°C.
Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.

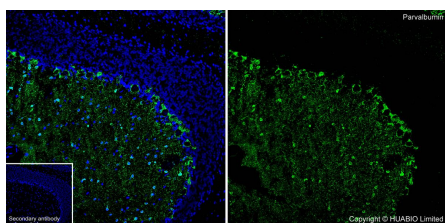


Fig4: Application: Immunofluorescence (IHC-Fr)

Species: Rat
Tissue: Cerebellum
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST
Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.

Primary antibody: HA601643, 1/500, overnight at 4°C.
Secondary antibody: Goat Anti-Rat IgG (iFluor™ 488, HA1133), 1.5 hours at room temperature.

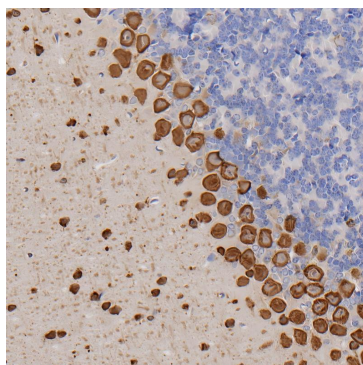


Fig5: Application: Immunohistochemistry (IHC-P)

Species: Mouse
Tissue: Cerebellum
Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST
Endogenous peroxidase blocking: 3% H₂O₂, 10 minutes at room temperature.
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.
Primary antibody: HA601643, 1/5,000, 1 hour at room temperature.
Secondary antibody: HA1023, 20 minutes at room temperature.

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

Background References

1. Hijazi S et al. Fast-spiking parvalbumin-positive interneurons in brain physiology and Alzheimer's disease. Mol Psychiatry. 2023 Dec
2. Feng YF et al. Parvalbumin neurons mediate neurological phenotypes of anti-NMDAR encephalitis. Brain. 2025 May

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