

# Calbindin(JF05-01)

rev. 01/21/17  
Cat#: ET1702-54

**Product Type:** Recombinant rabbit monoclonal IgG, primary antibodies

**Species reactivity:** Human, Mouse, Rat

**Applications:** WB, ICC/IF, IHC

**Molecular Wt.:** 28 kDa

**Clone number:** JF05-01

**Description:** The family of EF-hand type Ca<sup>2+</sup>-binding proteins includes Calbindin D28K, Calbindin D9K, S-100  $\alpha$  and  $\beta$ , Calgranulin A (also designated MRP8), Calgranulin B (also designated MRP14), Calgranulin C and the Parvalbumin family members, including Parvalbumin  $\alpha$  and Parvalbumin  $\beta$  (also designated oncomodulin). Calbindin D28K, also known as calbindin, CALB1, D-28K or vitamin D-dependent calcium-binding protein, is a 261 amino acid protein with six EF-hand domains, four of which are active calcium-binding domains. Expressed in brain, ovary, uterus, testis, pancreas, liver, kidney and intestine, Calbindin D28K acts as a calcium-buffering agent and alters the activity of the plasma membrane ATPase. In neuronal cells, Calbindin D28K modulates calcium channel activity, calcium transients and intrinsic neuronal firing activity. Also, Calbindin D28K has been implicated to play a role in apoptosis and microtubule function.

#### Immunogen:

Recombinant protein.

#### Positive control:

PC-12, 293T, rat brain tissue, human kidney tissue, mouse kidney tissue, mouse brain tissue.

#### Subcellular location:

Cytosol, Nucleus.

#### Database links:

SwissProt: P05937 (Human) P12658 (Mouse) P07171 (Rat)

#### Recommended Dilutions:

**WB:** 1:1,000-1:2,000    **ICC:** 1:50-1:200

**IHC:** 1:50-1:200

#### Storage Buffer:

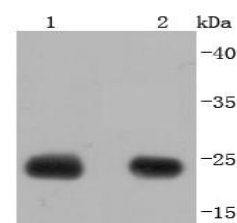
1\*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.

#### Storage Instruction:

Store at +4° C after thawing. Aliquot store at -20° C or -80° C. Avoid repeated freeze / thaw cycles.

#### Purity:

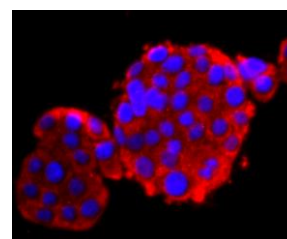
ProA affinity purified.



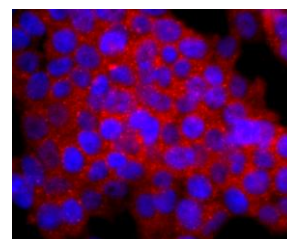
**Fig1:** Western blot analysis of Calbindin on different lysates using anti-Calbindin antibody at 1/1,000 dilution.

**Positive control:**

**Lane 1: Rat brain      Lane 2: Mouse kidney**



**Fig2:** ICC staining Calbindin in PC-12 cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining Calbindin in 293T cells (red). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

Hangzhou HuaAn Biotechnology Co.,Ltd.

Orders: 0086-571-88062880

Support: 0086-571-89986345

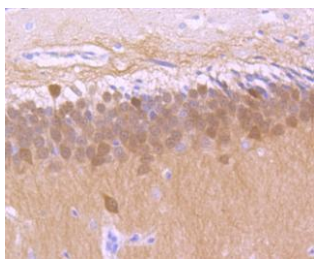
Service mail: tech@huabio.com

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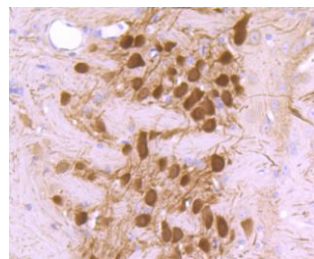


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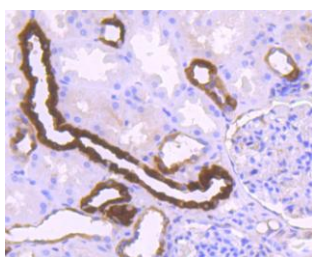
Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry  
Species Cross-Reactivity: H=human M=mouse R=rat Hm=hamster Mk=monkey Mi=mink C=chicken Dm=D.melanogaster X=Xenopus Z=zebrafish  
B=bovine Dg=dog Pg=pig Sc=S.



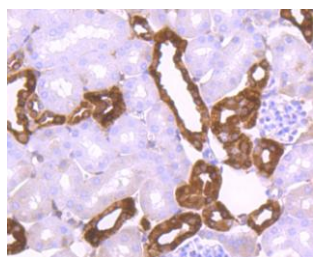
**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Calbindin antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-Calbindin antibody. Counter stained with hematoxylin.



**Fig5:** Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Calbindin antibody. Counter stained with hematoxylin.



**Fig7:** Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-Calbindin antibody. Counter stained with hematoxylin.

#### Background References

1. Hosoya M et al. Overlapping expression of anion exchangers in the cochlea of a non-human primate suggests functional compensation. *Neurosci Res* 110:1-10 (2016).
2. Santos-Ferreira T et al. Daylight vision repair by cell transplantation. *Stem Cells* 33:79-90 (2015).

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