

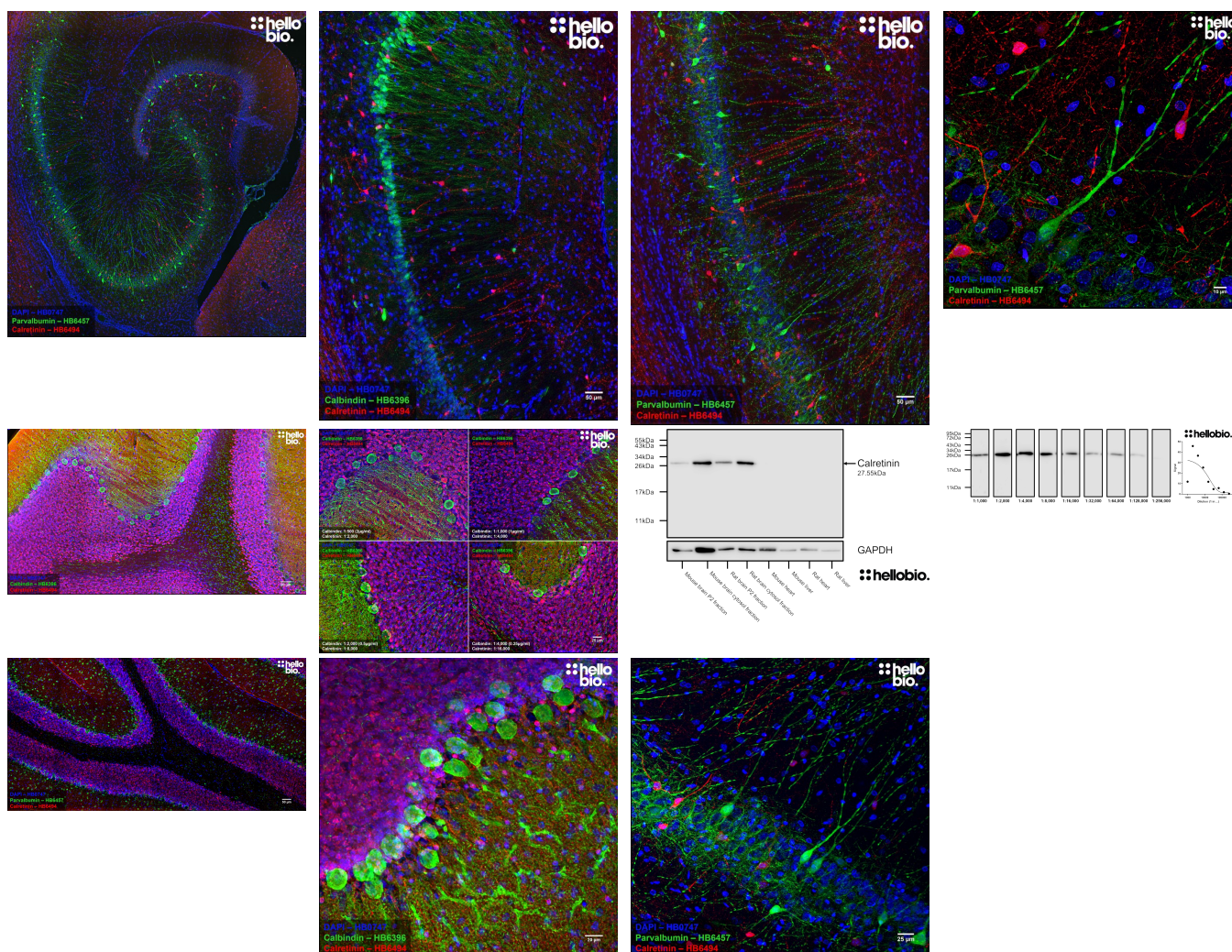
DATASHEET

Anti-Calretinin antibody ValidAb™

Product overview

Name	Anti-Calretinin antibody ValidAb™
Cat No	HB6494
Host	Rabbit
Clonality	Polyclonal
Target	Calretinin
Description	Antibody to Calretinin - calcium binding protein used as a marker for an inhibitory interneuron subtype. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data



Product information

Immunogen	Recombinant human calretinin expressed in and purified from <i>E. coli</i>
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Purification	Unpurified
Formulation	Lyophilised. When reconstituted contains serum with 1% recombinant BSA and 5mM sodium azide
Predicted species reactivity	Mouse, Rat, Human
Tested species reactivity	Mouse, Rat

Tested applications

Applications	WB, IHC(IF)
Western blot optimal concentration	A dilution of 1:8,000 as tested in a rat brain cytosol preparation.
IHC(IF) optimal concentration	A dilution of 1:4,000 as tested in paraformaldehyde fixed free-floating rat cerebellum sections.
Positive control	Calretinin is expressed in inhibitory interneurons in a wide range of brain regions including the cerebellum and hippocampus. Calretinin is also expressed in a wide array of cell lines (see the human protein atlas).
Negative control	Calretinin lacks expression in somatic tissues such as the liver, skin and skeletal muscle. Calretinin expression is also lacking in many cell lines such as HEK293T and HeLa.
Open data link	Please follow this link to OSF .

Target information

Other names	CALB2, CAB29, CAL2, Calbindin 2, 29kDa calbindin
UniProt ID	P22676
Gene name	CALB2
NCBI full gene name	calbindin 2
Entrez gene ID	794
Amino acids	271 (31.5kDa)
Isoforms	Calretinin only has one described isoform.
Expression	Calretinin is expressed widely amongst inhibitory interneurons in the brain with particularly high expression in the cerebellum and hippocampus. It is also expressed in peripheral tissues such as the testes, lung, pancreas and kidney.
Subcellular expression	Calretinin is primarily expressed cytosolically although some nuclear expression has been reported.
Processing	Calretinin is not subject to any processing before achieving an active conformation
Post translational modifications	Calretinin is subject to phosphorylation on tyrosine 214.
Homology (compared to human)	Mouse and rat calretinin show 98.5% and 98.9% homology respectively to human calretinin. Mouse and rat calretinin only show 1 amino acid difference (M271V).
Similar proteins	In a BLAST search only Calbindin (58.5% identity, 28kDa) was identified as being a similar protein.

Storage & Handling

Storage instructions	-20°C then use reconstitution advice
Reconstitution advice	We recommend reconstituting with either:

- dH₂O and storing at 4°C
- 50:50 ratio of dH₂O to glycerol and storing at -20°C
- dH₂O then aliquot and store at -80°C

Take care when opening as the precipitate is extremely light and can easily be lost if disturbed. When reconstituting make sure that the antibody is thoroughly dissolved by pipetting up and down before giving the antibody a brief spin at <10,000g to make sure that all material is recovered and at the bottom of the tube.

Important	For more information please see our detailed guide on storing and using your antibody This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use
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References

Calretinin: from a "simple" Ca(2+) buffer to a multifunctional protein implicated in many biological processes.

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Calretinin-Expressing Synapses Show Improved Synaptic Efficacy with Reduced Asynchronous Release during High-Rate Activity.

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