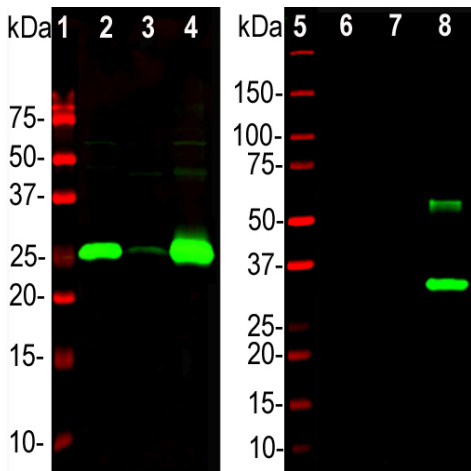
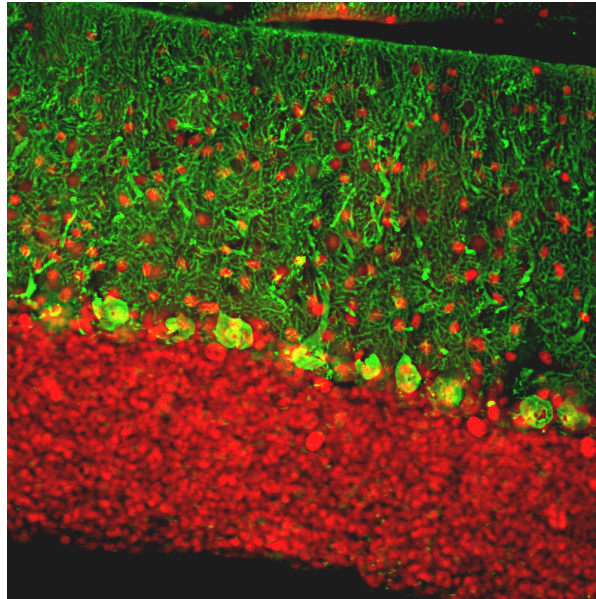

Product name:	Calbindin D28K Chicken Polyclonal Antibody
Cat number:	AB-83902
Conjugate:	Unconjugated
Size:	100 ug
Clone:	POLY
Concentration:	1mg/ml
Host:	Chicken
Isotype:	IgY
Immunogen:	Full-length recombinant human protein expressed in and purified from E. coli.
Reactivity:	Hu Rt Ms,Cw, Pg
Applications:	Western Blot: 1:5,000 Immunofluorescence: 1,000-1:5,000 Immunocytochemistry: 1:1,000-1:5,000 Immunohistochemistry: 1;10,000
Molecular Weight:	28kDa
Purification:	Purified
Form:	Liquid
Buffer:	Concentrated IgY preparation plus 0.02% NaN ₃
Storage:	Stable at 4°C for 1 year.
Background:	<p>Calbindin, also known as calbindin 1 or calbindin-D28k is a member of the large superfamily of cytoplasmic EF hand containing Calcium binding proteins and is expressed in the brain, intestine, kidney and pancreas. It is particularly concentrated in the dendrites and perikarya of cerebellar Purkinje cells, but is also found in many GABAergic interneurons in the cerebral cortex. These GABAergic interneurons in most cases express only one of three Calcium binding proteins, namely calbindin or parvalbumin or calretinin. As a result these important and physiologically distinct inhibitory interneurons can be identified and subclassified based on their content of these three proteins. The Calb antibody was made against full length recombinant human calbindin expressed in and purified from E. coli. We have shown that the antibody binds calbindin cleanly on western blots and in sections but fails to recognize the related calretinin and parvalbumin proteins. It is therefore ideally suited for identifying and subclassifying cortical GABAergic neurons.</p>



Western blot analysis of different tissue lysates and recombinant protein solutions using chicken pAb to calbindin, dilution 1:5,000 in green: [1] protein standard (red), [2] rat cerebellum, [3] pig hippocampus, [4] cow cerebellum, [5] protein standard (red). Next lanes are full length recombinant human proteins, [6] parvalbumin, [7] calretinin, [8] calbindin. Bands at ~25kDa in tissue lysates and ~30 kDa in protein solutions correspond to native calbindin, the recombinant forms of calbindin, calretinin and parvalbumin being slightly larger due to the presence of a His tag and other vector derived sequence. The Calb antibody specifically recognizes calbindin protein and does not react with the closely related proteins parvalbumin and calretinin.



Immunofluorescent analysis of rat cerebellum section stained with chicken pAb to calbindin, dilution 1:2,000, in green, and costained with rabbit pAb to MeCP2, dilution 1:5,000, in red. Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 μ m, and free-floating sections were stained with above antibodies. Calbindin, often used as a Purkinje cell marker, is prominently detected in dendrites and perikarya of these cells in the cerebellar molecular layer. The MeCP2 antibody selectively stains nuclei of neuronal cells.