

## Product Data Sheet: Calbindin D28K Mouse Monoclonal Antibody

Cat. No: MAB-94138
Conjugate: Unconjugated

Size: 100 ug
Clone: 4H7
Concentration: 1mg/ml
Host: Mouse
Isotype: IgG1

Immunogen: Full-length recombinant human calbindin protein, Calb1. expressed in and purified

from E. coli.

**Reactivity:** Hu, Rt, Ms, Cw, Ho, Pg, Ch

Applications: Western Blot: 1:1,000-1:5,000. Immunofluorescence: 1:1,000.

Immunocytochemistry: 1:1,000. Immunohistochemstry: 1:1,000.

Molecular Weight: 28kDa

**Purification:** Affinity purification

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 (1-3). 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

**Background:** important and physiologically distinct

inhibitory interneurons can be identified and subclassified based on their content of these three proteins (4-6). The Calbindin 4H7 antibody was made against full length recombinant human calbindin expressed in and purified from E. coli, Calb1. 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. The antibody works well for western blotting and for IF, ICC and IHC.

Form: Liquid

**Buffer:** Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3

**Storage:** Store at 4°C for short term, for longer term store at -20°C