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Product Description

Rabbit anti-Calbindin

CB 38a

Straight antiserum

Product: Rabbit anti-Calbindin D-28k

Code No.: CB38a

Form: Lyophilized antiserum (no preservatives).

Quantities available: 200 µl, 500 µl, and 1 ml

Reconstitution: with corresponding amount of bi-distilled water

Description

This antiserum was produced against recombinant rat calbindin D-28k (CB). It crossreacts with calbindin D-28k from many other species, including human, monkey, rat, mouse chicken and fish (Fig. 1). In immunoblots it recognizes a single band of approximately 27 -28 kDa. In samples with very high (10-fold higher than CB) concentrations of the related protein calretinin, a larger band (29 - 30 kDa) may appear in Western blots. Thus, depending on the dilution of the antiserum and/or sensitivity of the immunostaining, this other calcium-binding protein could be also revealed. In case of doubt, we suggest to switch to Swant's monoclonal antibody 300 directed against calbindin D-28k, which does not recognize calretinin.

Immunoblot



Fig. 1 Immunoblot of brain homogenate of various species with the monoclonal antibody CB 38
1: Mouse; 2: Rat; 3: Guinea pig; 4: Rabbit; 5: Macaca fascicularis; 6: Zebrafish; 7: chicken. In all species, only a band at 28 KDa is detected.

Immunohistochemistry on Calbindin D-28k knock-out mice

Antiserum CB38 immunolabels a subpopulation of neurons in the normal brain with high efficiency (Fig. 2a), but does not stain the brain of calretinin knock out mice (Fig. 2b).



Fig 2a: Immunohistochemical staining with CB 38a in the cerebellum of a control mouse. Notice the strong staining of the Purkinje cell bodies (P), their dendrites in the molecular layer (M) and their converging axons (A). X100

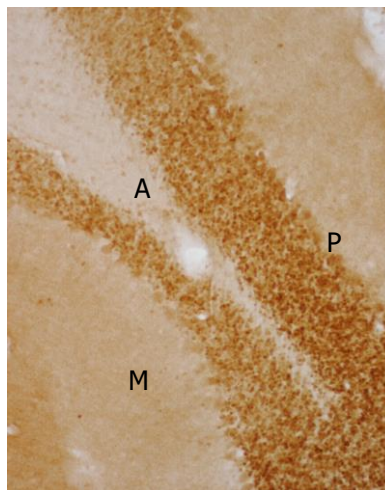


Fig 2b: Absence of specific immunohistochemical staining with CB 38a in the cerebellum of a Calbindin D-28k knock-out mouse (1). X 100

Working dilutions

Immunohistochemistry: 1:10'000 - 1:20'000 with the avidin-biotin method.

Immunoblots: 1:100 - 1:1'000. We recommend that the optimal dilutions be determined by titration experiments.

Storage

Make small portions (e.g. 2-5 µl). For long storage, keep at - 80°C (or at least -20°C). For continuous use, keep at 4°C (with 0.01% Na-azide). Avoid repeated freezing and thawing.

References

1. Airaksinen M.S., et al, (1997), PNAS 94(4) : 1488-1493