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# Product Description

## CR 7699/3H

### Rabbit anti Calretinin

**Product:** Rabbit anti-calretinin

**Code No:** 7699/3H

**Lot no:** 18299

**Form:** Lyophilized whole serum (no preservatives).

**Quantity:** 200 µl.

**Reconstitution:** with 200 µl of bidistilled water.

#### Description

The antiserum against calretinin is produced in rabbits by immunization with recombinant human calretinin containing a 6-his tag at the N-terminal. The antibody was evaluated for specificity and potency: a) by Biotin-Avidin labeling of cryostate-, vibratome- and paraffin-sections of 4% paraformaldehyde fixed brains and b) by immunoenzymatic labelling of immunoblots.

The product is a polyclonal antiserum against calretinin (1), a calcium-binding protein of the EF-hand family related to calbindin D-28k and calmodulin. The antibody reacts specifically with calretinin in tissue originating from human, monkey, rat, mouse, guinea pig, chicken and fish (Fig. 1). This antiserum does not cross-react with calbindin D-28k or other known calcium binding-proteins, as determined by immunoblots and by its distribution in the brain (Fig. 2).

#### Immunoblot

In Fig. 1, extracts of soluble proteins were isolated from whole brains of different species and separated by SDS-PAGE. In the Western blot the antiserum 7699/3H specifically recognizes a band of 29-30k Da.



Fig. 1 Immunoblot of brain homogenates of various species with antiserum 7699/3H. 1: Mouse, 2: Rat, 3: Guinea pig, 4: Rabbit, 5: Macaca fascicularis, 6: Zebrafish, 7: Chicken, 8: recombinant calretinin

### Immunohistochemistry on Calretinin knock-out mice

Antibody 7699/3H labels 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).

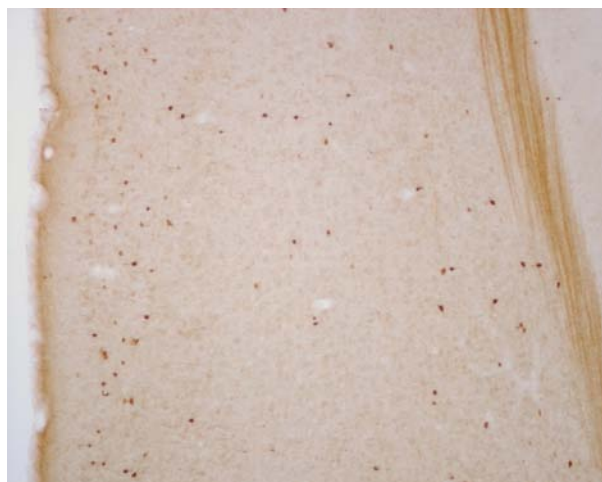


Fig 2a: Immunohistochemical staining with antiserum 7699/3H in the cerebral cortex of a control mouse. Notice the staining of scattered interneurons in various layers. X100



Fig 2b: Absence of specific immunohistochemical staining with antiserum 7699/3H in the cerebral cortex of a calretinin knock-out mouse (2). X 100

### Uses

Calretinin belong probably to the class of “trigger” calcium binding-proteins. It occurs mainly in subpopulations of nerve cells and is an excellent markers for mesotheliomas (3,4).

### Working dilutions

Immunohistochemistry: 1:2'000 - 1:5'000, on paraformaldehyde (4%) or formalin-fixed tissue, cryostate or paraffin-sections.

Immunoblots: 1:1'000 - 1:2'000.

For immunohistochemistry and immunoblots the titer was determined by using the avidin-biotin method. We recommend that the optimal dilutions be determined by titration experiments.

### Storage

After reconstitution freeze in small aliquots (e.g. 1 µl) and 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. Schwaller B., Buchwald P., Blümcke I., Celio M.R. and Hunziker W. (1994) Characterization of a polyclonal antiserum against the purified human recombinant calcium-binding protein calretinin. *Cell Calcium* **14**: 639-648.
2. Schiffmann S.N. et al (1999) Impaired motor coordination and Purkinje cell excitability in mice lacking calretinin. *PNAS*, **96**: 5257-5262.
3. Gotzos V., Vogt P. and M.R. Celio (1995) Calretinin is a selective marker for malignant pleural mesotheliomas of the epithelial type. *Pathol. Res. Pract.* **192**:137-147.
4. Doglioni, C. et al. (1996) Calretinin: a novel immunocytochemical marker for mesothelioma. *Am. J. Surg. Pathol.* **20**:1037-1046.