



Rte Ancienne Papeterie  
PO Box 327,  
CH-1723 Marly 1 (Switzerland)  
Fax: +41 91 825 76 08  
info@swant.com  
www.swant.com

## Product Description

### CR 7697

### Rabbit anti Calretinin (1 ml)

**Product:** Rabbit anti-calretinin

**Code No:** 7697

**Lot no:** 1893-0114

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

**Quantity:** 1 ml.

**Reconstitution:** with 1 ml 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 7697 specifically recognizes a band of 29-30k Da.



Fig. 1 Immunoblot of brain homogenates of various species with antiserum 7697. 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

Swant, PO Box 327, CH 1723 Marly 1  
www.swant.com

Antiserum 7697 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).

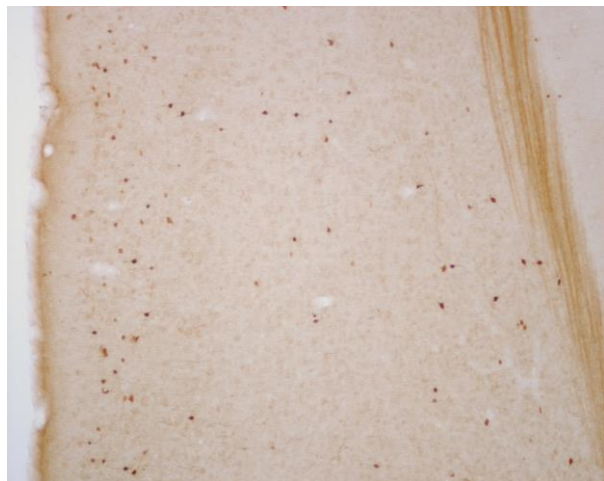


Fig 2a: Immunohistochemical staining with antiserum 7697 in the cerebral cortex of a control mouse. Notice the staining of scattered interneurons in various layers. X100



Fig 2b: Absence of specific immunohistochemical staining with antiserum 7697 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.