Product Description
Rabbit anti Parvalbumin

PV 27
Straight antiserum
Classic!

Product: Rabbit anti-parvalbumin

Code No: PV 27

Lot No.: 2014

Form: Lyophilized antiserum (no preservatives).

Quantity: 200 µl / 500 µl / 1 ml

Reconstitution: with 200 µl / 500 µl / 1 ml bi-distilled water (depending on the volume you ordered).

Description
This antiserum was produced against recombinant rat parvalbumin. It cross-reacts with many other species, humans included. It can be used in immunohistochemistry (Fig. 1) and for immunoblotting (Fig. 2).

Background
Calcium binding-proteins represent a family of small, acidic proteins equipped with peculiar cavities which accept Ca\(^{2+}\) with high selectivity (1). There are two types of calcium binding-proteins, “trigger” and “buffer” proteins. Those of the “trigger”-type (e.g. calmodulin and troponin-C) act by changing shape upon binding Ca\(^{2+}\). This distortion exposes regions on the surface of the protein, which interact with surrounding target molecules, altering their activity. The calcium binding-protein of the “buffer”-type are conceived as a system which is in charge of controlling the Ca\(^{2+}\) concentration inside cells. Parvalbumin occurs mainly in subpopulations of nerve cells (2) and in fast muscle fibers (3). It might confer on these cells peculiar skills in the handling of calcium-ions.

Immunohistochemistry on parvalbumin knock-out mice
Antiserum PV27 labels a subpopulation of neurons in the normal brain with high efficiency (Fig. 1a), but does not stain the brain of parvalbumin knock-out mice (Fig. 1b).

Immunoblot
The antiserum PV27 recognizes the antigen at 12 kDa after SDS-gel electrophoretic separation of brain extracts. Therefore, antiserum PV27 can be used in immunoblots (Fig. 2).
**Working dilutions**

Immunohistochemistry: 1:5'000 - 1:10'000 with the avidin-biotin method.
Immunoblots: 1:500 - 1:1'000

We recommend that the optimal dilutions be determined by titration experiments.

**Storage**

Reconstitute with 200 µl bi-distilled water and make small portions upon arrival (e.g. 2-5 µl). For long storage, keep at - 80°C (or at least - 20°C). For continuous use keep the diluted antiserum at 4°C (with 0.01% Na-azide). Avoid repeated freezing and thawing.

**References**