

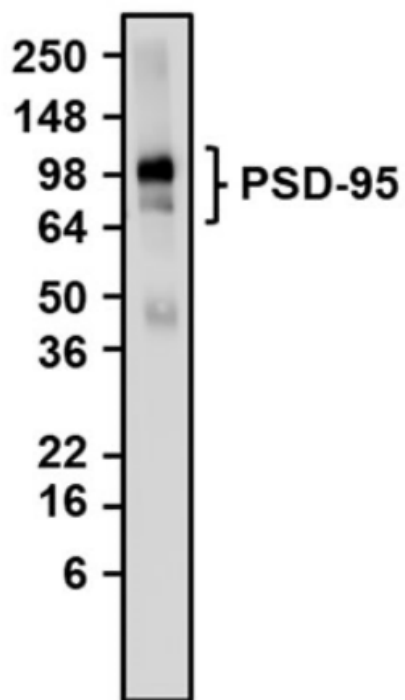
## PRODUCT DATASHEET

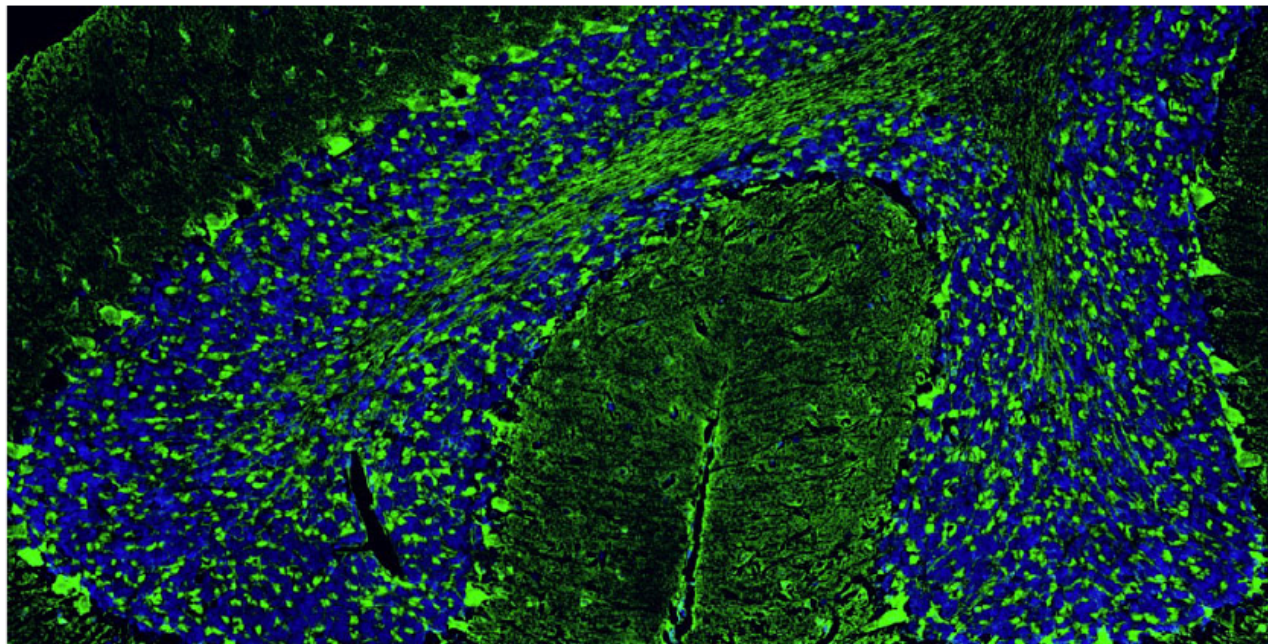
# Anti-PSD-95 (K28/43) Recombinant Guinea Pig Chimeric mAb

## Overview

|                           |                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog #</b>          | 74-028 (100 µL size) or 74-028-020 (20 µL size)                                                                                     |
| <b>Conjugate</b>          | Unconjugated                                                                                                                        |
| <b>Isotype</b>            | IgG                                                                                                                                 |
| <b>Clone Number</b>       | K28/43                                                                                                                              |
| <b>Concentration</b>      | 1 mg/mL                                                                                                                             |
| <b>Host Species</b>       | Guinea Pig Recombinant                                                                                                              |
| <b>Format</b>             | Purified by affinity chromatography                                                                                                 |
| <b>Buffer</b>             | 1X PBS, 0.05% Sodium Azide pH 7.4                                                                                                   |
| <b>Applications</b>       | WB, IHC, ICC, IP, ELISA                                                                                                             |
| <b>Species Reactivity</b> | Chicken, Human, Mouse, Non-Human Primate, and Rat                                                                                   |
| <b>Immunogen</b>          | Fusion protein amino acids 77-299 (PDZ domains 1 and 2) of human PSD-95 (accession number P78352) produced recombinantly in E. Coli |
| <b>Molecular Weight</b>   | 95-110 kDa (varies with cell background due to phosphorylation)                                                                     |

## Figures





Immunohistochemistry for detection of PSD-95 in adult rat cerebellum. Western blot detection of PSD-95. 10-20% Tris-Glycine Gel Tissue was fixed with 4% paraformaldehyde and paraffin embedded. Heat was loaded with rat brain membrane fraction. Proteins induced antigen retrieval was performed using citrate buffer (Cat. AR-6544) were transferred to PVDF membrane and blocked with 5% and then blocked with Immuno Protein Blocking Solution with Goat Serum non-fat milk powder. Anti-PSD-95 antibody was incubated (AR-6591). The anti-PSD-95 antibody (Cat.74-028) was incubated with the with sample at a concentration of 1 ug/ml and then sample at a dilution of 1:250 at 4C overnight. After washing with PBST, the detected via chemiluminescence (40 sec) using a Goat sections were stained using goat anti-guinea pig 488 secondary antibody Anti-Guinea Pig H+L, HRP conjugated secondary antibody. (green). DAPI nuclear stain (blue) shows cell nuclei. Anti-PSD-95 specifically Anti-PSD-95 recognizes endogenous PSD-95 in the rat stains the excitatory synapses in the granular layer of the cerebellum. brain membrane fraction. Immunohistochemistry for detection of PSD-95 in adult rat cerebellum. Tissue was fixed with 4% paraformaldehyde and paraffin embedded. Heat induced antigen retrieval was performed using citrate buffer (Cat. AR-6544) and then blocked with Immuno Protein Blocking Solution with Goat Serum (AR-6591). The anti-PSD-95 antibody (Cat.74-028) was incubated with the sample at a dilution of 1:250 at 4C overnight. After washing with PBST, the sections were stained using goat anti-guinea pig 488 secondary antibody (green). DAPI nuclear stain (blue) shows cell nuclei. Anti-PSD-95 specifically stains the excitatory synapses in the granular layer of the cerebellum.

## Details

### Target Description

PSD-95 is a member of the MAGUK (membrane associated guanylate kinase) family (which also includes PSD-93, SAP97 and SAP102) and functions as a scaffold protein that can cluster membrane receptors, ion channels, including NMDA receptor subunits, Kv1 potassium channels and Caspr2. The protein is encoded by DLG4, contains hallmark PDZ, SH3 and GuK domains and is found at post synaptic densities where it plays an important role in the formation and maintenance of synaptic junctions (Zhou and Blumberg, 2003). Indeed, overexpression or depletion of DLG4 changes the ratio of excitatory to inhibitory synapses in hippocampal neurons. Antibodies against PSD95/DLG4 are frequently used in conjunction with pre-synaptic markers to localize synapses by microscopy

### Specificity

No cross-reactivity against recombinant Chapsyn-110, SAP97 or SAP102

**Purification Method**

This recombinant antibody is a chimeric antibody created by replacing the mouse heavy and light constant regions of clone K28/43 with guinea pig IgG heavy and light constant regions. As such this antibody retains the same binding performance as the original clone K28/43 but can be detected using standard anti-guinea pig secondary antibodies allowing flexibility for multiplexing applications. This antibody is expressed recombinantly in mammalian cells and then affinity purified from the cell culture media.

**Quality Control Tests**

Each new lot of antibody is quality control tested by Western blot on rat whole brain lysate and confirmed to stain the expected molecular weight band.

**Storage**

Aliquot and store at  $\leq -20^{\circ}\text{C}$  for long term storage. For short term storage, store at  $2-8^{\circ}\text{C}$ . For maximum recovery of product, centrifuge the vial prior to removing the cap.

**Our Guarantee**

As an original manufacturer, we are dedicated to creating quality and reproducible antibodies that further your research. We provide personalized customer support from the scientists that made the antibody and offer a free replacement or 100% refund if we cannot resolve an issue. Order today and experience our 50+ year passion for science.

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