# Human/Mouse/Rat Parvalbumin α Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5058

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human/Mouse/Rat |
| **Specificity** | Detects human, mouse, and rat Parvalbumin α in direct ELISAs and Western blots. |
| **Source** | Polyclonal Sheep IgG |
| **Purification** | Antigen Affinity-purified |
| **Immunogen** | *E. coli*-derived recombinant human Parvalbumin α<br>Ser2-Ser110<br>Accession # P20472 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS. |

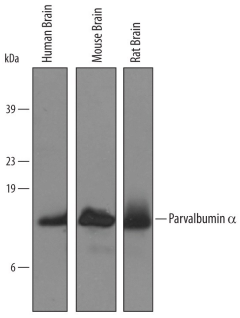
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Western Blot** | 1 µg/mL | See Below |
| **Immunohistochemistry** | 5-15 µg/mL | See Below |
| **Simple Western** | 50 µg/mL | See Below |

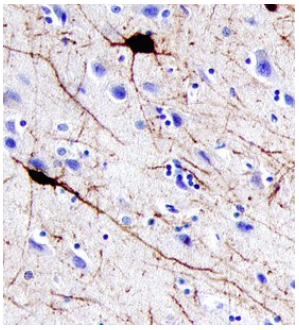
## DATA

### Western Blot



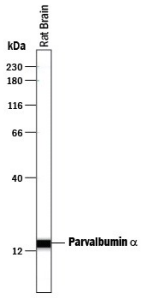

**Detection of Human/Mouse/Rat Parvalbumin α by Western Blot.** Western blot shows lysates of human, mouse, and rat brain tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat Parvalbumin α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5058) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Parvalbumin α at approximately 12 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

### Immunohistochemistry



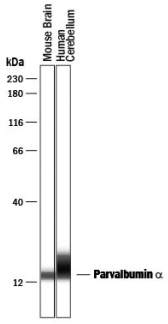
**Parvalbumin α in Human Brain.** Parvalbumin α was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using 5 µg/mL Sheep Anti-Human/Mouse/Rat Parvalbumin α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5058) overnight at 4 °C. Tissue was stained with the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

### Simple Western




**Detection of Rat Parvalbumin α by Simple Western™.** Simple Western lane view shows lysates of rat brain tissue, loaded at 0.2 mg/mL. A specific band was detected for Parvalbumin α at approximately 15 kDa (as indicated) using 50 µg/mL of Sheep Anti-Human/Mouse/Rat Parvalbumin α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5058) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016) . This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

### Simple Western




**Detection of Human and Mouse Parvalbumin α by Simple Western™.** Simple Western lane view shows lysates of mouse brain (cortex) and human brain (cerebellum), loaded at 0.2 mg/mL. A specific band was detected for Parvalbumin α at approximately 14 and 17 kDa (as indicated) using 50 µg/mL of Sheep Anti-Human/Mouse/Rat Parvalbumin α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5058) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

## PREPARATION AND STORAGE

| | |
|---|---|
| **Reconstitution** | Reconstitute at 0.2 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

# Human/Mouse/Rat Parvalbumin α Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5058

## BACKGROUND

Parvalbumin (Parvalbumin α) is a 12 kDa member of the parvalbumin family of $Ca^{++}$-binding proteins. In human, it is expressed in intrafusal muscle fibers, plus GABAergic interneurons and cerebellar Purkinje and basket cells. It presumably acts as a $Ca^{++}$ buffer that shortens the duration of fiber contraction. Human Parvalbumin is 110 amino acids (aa) in length. It contains two EF-hand domains (aa 39-74 and 78-110) that bind calcium. There are three potential isoform variants. One shows an alternate start site at Met33, a second shows a six aa substitution for the C-terminal nine amino acids and a third shows a deletion of Gly99-Val100. Human Parvalbumin α is 51% aa identical to human Parvalbumin β and is 87% plus 92% aa identical to mouse and rat Parvalbumin, respectively.



bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956