

Polyclonal Antibody to Parvalbumin alpha / PVALB (C-term) - Aff - Purified

Catalog No.: TA303033

Quantity: 0.1 mg

Concentration: 0.5 mg/ml

Background: Parvalbumin (PV) is a calcium binding protein expressed in specific muscle fibers and fast-firing neurons. PV consists of a single, unbranched chain of linked amino acids and belongs to a larger group of EF hand proteins. Studies have demonstrated that parvalbumin acts in the decay of calcium in the contraction/relaxation cycle of fast twitch muscles. This data has shown a positive correlation between the rate of relaxation and the concentration of parvalbumin.

Parvalbumin is also expressed in a specific population of GABAergic interneurons which are thought to play a role in maintaining the balance between excitation and inhibition in the cortex as well as the hippocampus. In amyotrophic lateral sclerosis (ALS) patients, parvalbumin immunoreactivity is specifically absent from neuron populations lost early in ALS.

Uniprot ID: [P20472](#)

NCBI: [NP_002845.1](#)

GeneID: [5816](#)

Host: Goat

Immunogen: Peptide with sequence from the C Terminus of the protein sequence according to NP_002845.1.

Genename: PVALB

AA Sequence:
C-GVDEFSTLVAES

Format: **State:** Liquid purified IgG fraction.

Purification: Ammonium Sulphate Precipitation followed by Antigen Affinity Chromatography using the immunizing peptide.

Buffer System: Tris saline, pH~7.3

Preservatives: 0.02% Sodium Azide

Stabilizers: 0.5% BSA

Applications: **Peptide ELISA:** 1/32000 (Detection limit).

Western Blot: 0.1-0.3 µg/ml.

Approx 12kDa band observed in Human Brain lysates (calculated MW of 12.1kDa according to NP_002845.1).

Approx 10-12kDa band observed in rat skeletal muscle and in rat heart cells transfected with human PVALB, but not in untransfected rat heart cells (Ref.1).

Immunohistochemistry on Paraffin Sections.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognizes Parvalbumin.

Species Reactivity: Tested: Human, Rat.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings: 1. Hashimoto T, Bergen SE, Nguyen QL, Xu B, Monteggia LM, Pierri JN, et al. Relationship of brain-derived neurotrophic factor and its receptor TrkB to altered inhibitory prefrontal circuitry in schizophrenia. *J Neurosci.* 2005 Jan 12;25(2):372-83. PubMed PMID: 15647480.

Pictures: TA303033 (0.1µg/ml) staining of Human Brain lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

