abcam

ab32895

Anti-Parvalbumin antibody

Key facts

Isotype	IgG
Host species	Goat
Storage buffer	pH: 7.3 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human PVALB aa 50 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P20472
Purification technique	Affinity purification Immunogen
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Reactivity data

WB

Tested

Species	Human
Dilution info	0.01-0.3 µg/mL
Notes	Block using milk. Primary incubation 1 hour at room temperature. Recommended concentration: 0.1-0.3µg/ml.

Species	Rat
Dilution info	0.01-0.3 µg/mL
Notes	-

Predicted

Species	Mouse, Xenopus laevis, Macaque monkey
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse, Xenopus laevis, Macaque monkey
Dilution info	-
Notes	-

Target data

See full target information PVALB

Function	In muscle, parvalbumin is thought to be involved in relaxation after contraction (By similarity). It binds two calcium ions (PubMed:15122922, PubMed:39584689).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Parvalbumin sometimes referred to as PV is a calcium-binding protein approximately 12 kDa in size. It is recognized for its roles in muscle and neuronal tissues. Within the nervous system parvalbumin is prominently expressed in fast-spiking GABAergic interneurons while in muscle tissues it is present in fast-twitch muscle fibers. Other popular descriptors include anti PV and parvalbumins. These proteins play important roles in the regulation of cellular calcium levels.
Biological function summary	Parvalbumin helps modulate calcium ion concentration which is key in muscle relaxation and neurotransmission. It acts by buffering calcium ions and is not part of a larger protein complex. By impacting calcium transients parvalbumin affects processes like synaptic plasticity and the rapid contractions of muscle fibers. This is especially significant in the brain where rapid neuronal firing is needed and in muscles where quick recovery is essential.
Pathways	Parvalbumin is intimately linked with calcium signaling pathways as well as the regulation of muscle contraction. It ensures proper calcium ion homeostasis thereby aiding muscle relaxation after contraction. In the nervous system calbindin proteins parallel some of parvalbumin's functions participating in calcium ion buffering and modulation of neuron excitability. The balanced action of these proteins helps maintain cellular functions in both neurons and muscles.
Associated diseases and disorders	Insufficient parvalbumin expression may link to epilepsy and schizophrenia. Deficits in this protein could interfere with normal neurotransmission and muscle relaxation cycles. Parvalbumin deficiency influences neurotransmitter release affecting synaptic transmission which may exacerbate symptoms in these conditions. In disease mechanisms proteins such as calbindin may indirectly relate with parvalbumin showing similar patterns of dysregulation and compensating for its absence in calcium handling.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

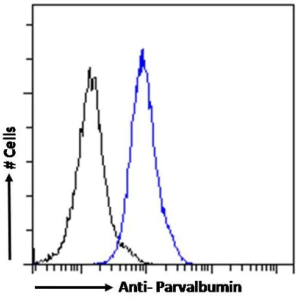
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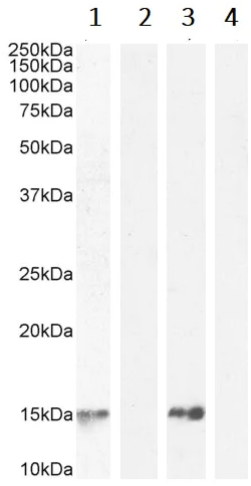
2 product images



Flow Cytometry - Anti-Parvalbumin antibody (ab32895)

Parvalbumin Flow Cytometry staining using goat Anti-Parvalbumin antibody

Flow cytometric analysis of human peripheral blood monocytes. Primary incubation 30 minutes (10µg/mL) followed by Alexa Fluor 488 secondary antibody (1µg/mL).



Western blot - Anti-Parvalbumin antibody (ab32895)

Lysate in RIPA buffer. Detected by chemiluminescence.
All lanes:
Western blot - Anti-Parvalbumin antibody (ab32895) at 0.01 µg/mL

Lane 1:
Human cerebellum tissue lysate at 35 µg

Lane 2:
Human cerebellum tissue lysate + peptide at 35 µg

Lane 3:
Rat brain tissue lysate at 35 µg

Lane 4:

Rat brain tissue lysate + peptide at 35 µg

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.