www.antibodiesinc.com
orders@antibodiesinc.com
530-758-4400

PRODUCT DATASHEET

Anti-Activity-regulated cytoskeleton-associated protein (Arg3.1) Antibody

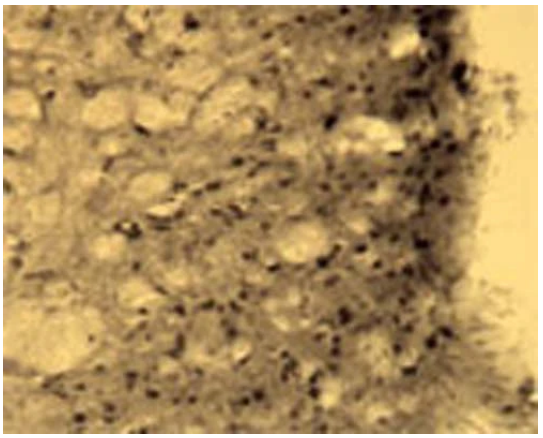
Product Details

Available Variants	100 µL (SKU:R-154-100)
Conjugate	Unconjugated
Isotype	Mixed
Host Species	Rabbit
Format	Whole serum
Physical State	Lyophilized
Buffer	Lyophilized, containing no preservatives.
Applications	IHC
Dilution Ranges	IHC: 1:50-1:1000
Species Reactivity	Human, Mouse, Rat
Immunogen	A synthetic peptide from the C terminal of human Arg3.1 protein (ARC protein) conjugated to Blue Carrier Protein. The sequence is homologous with mouse and rat form of Arg3.1.
Specificity	Specific for Arg3.1. Rat and mouse. Other species not yet tested.
Storage	Spin vial briefly before opening. Reconstitute in 100 µL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. Use sterile methods as antibody does not contain preservativesAfter reconstitution keep aliquots at -20°C for a higher stability. Glycerol (1:1) may be added for an additional stability. Sodium azide or other appropriate antibacterial agent should be added if material is to be kept any length of time at 2-8°C. Avoid repetitive freeze/thaw cycles.
UniProt ID	Q7LC44 UniProt Summary: Master regulator of synaptic plasticity that self-assembles into virion-like capsids that encapsulate RNAs and mediate intercellular RNA

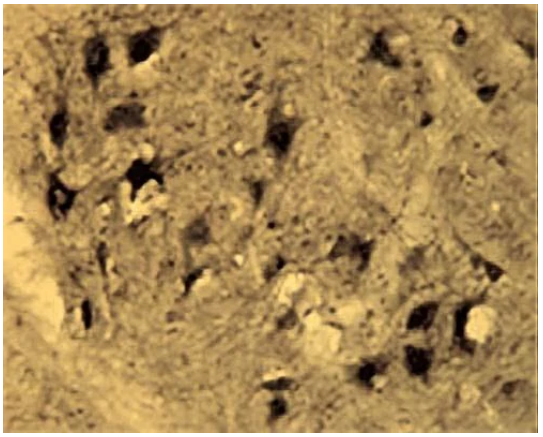
transfer in the nervous system. ARC protein is released from neurons in extracellular vesicles that mediate the transfer of ARC mRNA into new target cells, where ARC mRNA can undergo activity-dependent translation. ARC capsids are endocytosed and are able to transfer ARC mRNA into the cytoplasm of neurons. Acts as a key regulator of synaptic plasticity: required for protein synthesis-dependent forms of long-term potentiation (LTP) and depression (LTD) and for the formation of long-term memory. Regulates synaptic plasticity by promoting endocytosis of AMPA receptors (AMPARs) in response to synaptic activity: this endocytic pathway maintains levels of surface AMPARs in response to chronic changes in neuronal activity through synaptic scaling, thereby contributing to neuronal homeostasis. Acts as a postsynaptic mediator of activity-dependent synapse elimination in the developing cerebellum by mediating elimination of surplus climbing fiber synapses. Accumulates at weaker synapses, probably to prevent their undesired enhancement. This suggests that ARC-containing virion-like capsids may be required to eliminate synaptic material. Required to transduce experience into long-lasting changes in visual cortex plasticity and for long-term memory. Involved in postsynaptic trafficking and processing of amyloid-beta A4 (APP) via interaction with PSEN1. In addition to its role in synapses, also involved in the regulation of the immune system: specifically expressed in skin-migratory dendritic cells and regulates fast dendritic cell migration, thereby regulating T-cell activation.

Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	23237

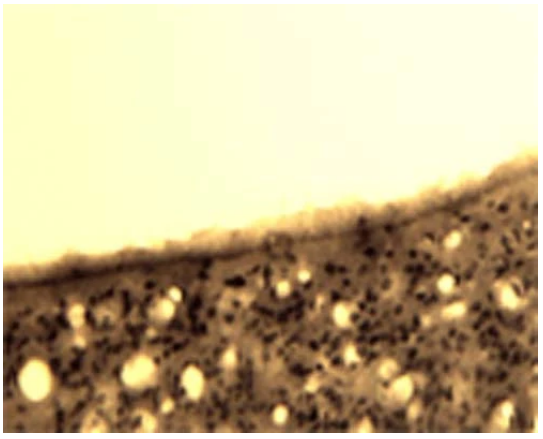
Product Images



Immunohistochemical detection of Arg3.1 in free floating cryosectioned rat spinal cord (dorsal horn) using Rabbit antibody to Arg3.1 (ARC): whole serum (R-154-100) at a dilution of 1: 250.



Immunohistochemical detection of Arg3.1 in free floating cryosectioned rat spinal cord (ventral horn) using Rabbit antibody to Arg3.1 (ARC): whole serum (R-154-100) at a dilution of 1: 250.



Immunohistochemical detection of Arg3.1 in free floating cryosectioned rat brain (3d ventricle) using Rabbit antibody to Arg3.1 (ARC): whole serum (R-154-100) at a dilution of 1: 250.