

Product datasheet for TP506218

Arc (NM_018790) Mouse Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Purified recombinant protein of Mouse activity regulated cytoskeletal-associated protein (Arc), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug

Species: Mouse

Expression Host: HEK293T

Expression cDNA Clone or AA Sequence: >MR206218 representing NM_018790
Red=Cloning site **Green**=Tags(s)

MELDHMTTGGLHAYPAPRGGPAAKPNVILQIGKCRAEMLEHVRRTHRHLLTEVSKQVERELKGLHRSVGK
LENNLDGYVPTGDSQRWKKSIKACLCRCQETIANLERWVKREMHVWREVFYRLERWADRLESMGGKYPVG
SEPARHTVSVGVGGPEPYCQEQADGYDYTVSPYAITPPPAAGELPEQESVEAQYQSWGPGEDGQPSGVD
TQIFEDPREFLSHLEEYLRQVGGSEEWLSQIQNHMNGPAKKWWEFKQGSVKNWVEFKKEFLQYSEGTLT
REAIQRELELPKQKQGEPLDQFLWRKRDLYQTLYVDAEEEEIIQYVWGTLPKLRFLRHPLPKTLEQLIQ
RGMVEVQDGLQAAEPSGTPLPTEDETEALTPALTSVSDRTQPE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-MYC/DDK

Predicted MW: 45.8 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

Storage: Store at -80°C after receiving vials.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: [NP_061260](#)

Locus ID: 11838

UniProt ID: [Q9WV31](#)



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RefSeq Size: 3059

Cytogenetics: 15 34.25 cM

RefSeq ORF: 1188

Synonyms: Arc3.1; arg3.1; C86064; mArc

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 (By similarity). 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 (By similarity). ARC capsids are endocytosed and are able to transfer ARC mRNA into the cytoplasm of neurons (By similarity). 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 (PubMed:29264923, PubMed:24094104). Regulates synaptic plasticity by promoting endocytosis of AMPA receptors (AMPA receptors) 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 (PubMed:17088213, PubMed:20211139, PubMed:20228806). Acts as a postsynaptic mediator of activity-dependent synapse elimination in the developing cerebellum by mediating elimination of surplus climbing fiber synapses (PubMed:23791196). Accumulates at weaker synapses, probably to prevent their undesired enhancement (By similarity). This suggests that ARC-containing virion-like capsids may be required to eliminate synaptic material (By similarity). Required to transduce experience into long-lasting changes in visual cortex plasticity and for long-term memory (PubMed:17088210, PubMed:20228806). Involved in postsynaptic trafficking and processing of amyloid-beta A4 (APP) via interaction with PSEN1 (PubMed:22036569). 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 (PubMed:28783680). [UniProtKB/Swiss-Prot Function]