

## Product datasheet for **AP06016PU-N**

### Arg 3.1 (ARC) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunofluorescence:</b> 1/50-1/200. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 161-210 of Human ARC.
Specificity:	This antibody detects endogenous levels of ARC protein. (region surrounding Glu194)
Formulation:	PBS, pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Predicted Protein Size:	~ 24 or 28 kDa
Gene Name:	activity-regulated cytoskeleton-associated protein
Database Link:	<a href="#">Entrez Gene 23237 Human</a> <a href="#">Q7LC44</a>



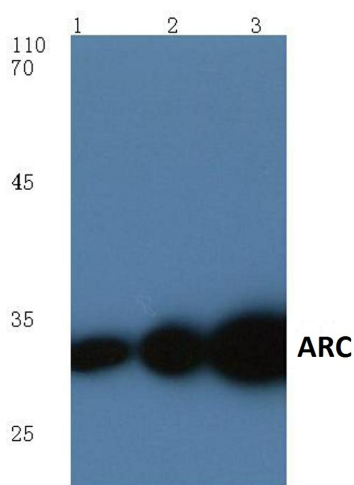
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**Background:**

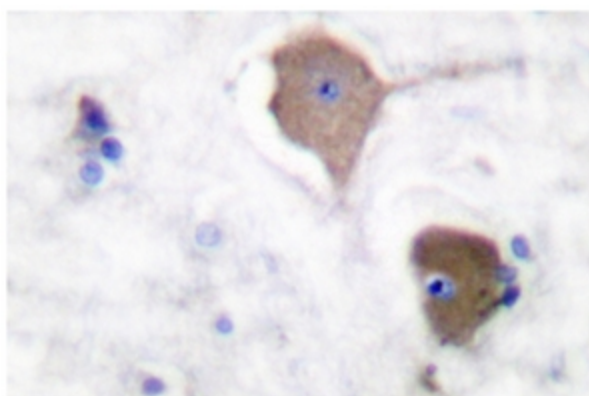
Growth factor stimulation has been shown to induce the expression of immediate early genes in non-neuronal cells, which encode a variety of molecules that are potentially involved in long-term cellular responses. Similar responses induced by neurotransmitter stimulation have also been seen in neuronal cells and evidence suggests that protein synthesis is required for long-term synaptic plasticity. Arc (for activity-regulated cytoskeleton-associated protein) is a growth factor and immediate early gene that is enriched in brain. Arc mRNA and protein levels are induced by neuronal activity, which is necessary to stimulate neuroplasticity, indicating a potential role for Arc in activitydependent changes in dendrite function. Arc expression has been detected in neuronal cell bodies and dendrites in the hippocampus, amygdala, hypothalamus, striatum and cortex. Arc has been shown to localize to the cytoskeleton of neuronal cells and appears to co-localize with F-Actin, although it may associate with an Actin-associated protein rather than directly with F-Actin. It has been shown that cocaine-stimulated neuronal activity results in increased Arc mRNA levels in striatum.

**Synonyms:**

KIAA0278

**Product images:**


Western blot (WB) analysis of ARC antibody at 1/500 dilution Lane 1: MCF-7 whole cell lysate. Lane 2: Rat brain tissue lysate. Lane 3: Mouse brain tissue lysate.



Immunohistochemistry (IHC) analysis of ARC / ARG3.1 antibody in paraffin-embedded human brain tissue.