Recombinant ARC protein (His tag)

Catalog Number	545292
Synonyms	hArc; Activity-regulated gene 3.1 protein homolog; ARC/ARG3.1; Arg3.1
Species	Human
Expression System	E. coli
Accession	Q7LC44
Molecular Weight	Predictes a molecular mass of 19.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	217-360
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 217-360 aa (Q7LC44) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human ARC Protein Fragment (aa 217-360) is a highly stable and soluble fragment of the Activity-regulated cytoskeleton-associated protein (ARC), a master regulator of synaptic plasticity. This fragment is ideal for structural studies, biochemical assays, and investigating ARC's role in intercellular RNA transfer and synaptic scaling mechanisms. The full-length Activity-regulated cytoskeleton-associated protein (ARC) serves as a critical mediator of synaptic plasticity, learning, and memory in the nervous system. It self-assembles into virion-like capsids that encapsulate RNAs and facilitate intercellular RNA transfer via extracellular vesicles. ARC regulates synaptic strength by promoting AMPA receptor endocytosis, contributing to synaptic scaling and neuronal homeostasis. It is also implicated in immune regulation through its role in dendritic cell migration. Localized to postsynaptic densities, dendritic spines, and extracellular vesicles, ARC accumulates at inactive synapses to prevent undesired enhancement and is involved in experience-dependent neural plasticity. The selected fragment (aa 217-360) represents a stable, soluble region optimized for experimental applications without known functional domains.