

Recombinant Human Coronin-6/CORO6 Protein (His Tag)

Catalog No. PKSH032282

Note: Centrifuge before opening to ensure complete recovery of vial contents.

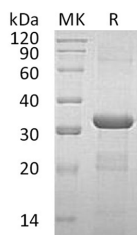
Description

Synonyms	Coronin-6;Clipin-E;CORO6
Species	Human
Expression Host	E.coli
Sequence	Met 1-Asp237
Accession	Q6QEF8-4
Calculated Molecular Weight	28.3 kDa
Observed molecular weight	30-35 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150m M NaCl, 1mM DTT, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Coronin 6, a newly identified member of the coronin family, is highly enriched at adult NMJs and regulates AChR

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clustering via modulating the interaction between receptors and the actin cytoskeletal network. Coronins are a family of conserved actin-binding proteins originally identified in the actin-rich structure of the amoeba *Dictyostelium discoideum*. To date, seven members of coronins have been identified in mammals, and most exhibit tissue-specific distribution patterns. Coronin 6 is prominently expressed in adult muscle and enriched at the NMJ. Studies with cultured myotubes reveal that Coronin 6 regulates both agrin- and laminin-induced AChR clustering and is important for anchoring AChRs onto the actin cytoskeleton. Also, both the C-terminal region and a conserved Arg29 residue at the N terminus of Coronin 6 are essential for its actin-binding activity and stabilization of AChR–cytoskeleton linkage. Importantly, in vivo knockdown of Coronin 6 in mouse skeletal muscle fibers leads to destabilization of AChR clusters, which demonstrates that Coronin 6 is a critical regulator of AChR clustering at the postsynaptic region of the NMJs through modulating the receptor-anchored actin cytoskeleton. The human Coronin 6 has five isoforms produced by alternative splicing, and tissue-specific expression of these isoforms are unclear.

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