Recombinant LRC8A protein (His tag)

Catalog Number	543092
Synonyms	Leucine-rich repeat-containing protein 8A; HsLRRC8A; Swelling protein 1
Species	Human
Expression System	E. coli
Accession	Q8IWT6
Molecular Weight	Predictes a molecular mass of 10.39 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	48-123
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 48-123 aa (Q8IWT6) 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	This recombinant protein represents a stable 76-amino acid fragment (residues 48-123) of human Volume-regulated anion channel subunit LRRC8A (HsLRRC8A), a key component of the cellular volume regulation system. This carefully selected fragment provides an ideal tool for structural studies and functional investigations of this crucial membrane protein. LRRC8A is an essential component of the volume-regulated anion channel (VRAC), which maintains cellular volume homeostasis in response to osmotic changes. This multi-pass membrane protein localizes primarily to the cell membrane and lysosomes, where it conducts anions and organic osmolytes while also mediating amino acid efflux during osmotic stress. Beyond its fundamental role in volume regulation, LRRC8A participates in diverse physiological processes including B-cell and T-cell development, myoblast differentiation, pancreatic beta cell glucose sensing, lysosome homeostasis, and NLRP3 inflammasome activation. The protein also functions as a transporter for immunoreactive cyclic dinucleotides and facilitates cisplatin uptake, highlighting its broad significance in cellular physiology and potential therapeutic applications.