Recombinant DREB protein (His tag)

Catalog Number	547373
Synonyms	Developmentally-regulated brain protein
Species	Human
Expression System	E. coli
Accession	Q16643
Molecular Weight	Predictes a molecular mass of 36.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	2-299
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 2-299 aa (Q16643) 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 Drebrin Fragment (aa 2-299) is a high-purity protein designed for studying actin cytoskeleton organization and cell projection formation. This fragment encompasses the essential ADF-H domain, making it an ideal tool for investigating specific domain functions in neuronal morphogenesis and immune synapse dynamics. Drebrin (Developmentally-regulated brain protein), encoded by the DBN1 gene, is an actin cytoskeleton-organizing protein critical for cellular projection formation and actin polymerization at immunological synapses. It plays a vital role in dendritic spine morphogenesis, localization of receptors such as CXCR4 and DRD1 to synaptic sites, and memory-related synaptic plasticity in the hippocampus. Subcellularly, drebrin localizes to the cytoplasm, cell cortex, dendrites, growth cones, and cell junctions, redistributing to peripheral and distal supramolecular activation clusters during immunological synapse formation. Its involvement in both neuronal development and immune cell function makes it a protein of broad research interest in neuroscience and immunology.