Recombinant DISC1 protein (His tag)

Catalog Number	543721
Species	Human
Expression System	E. coli
Accession	Q9NRI5
Molecular Weight	Predictes a molecular mass of 31.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	453-709
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 453-709 aa (Q9NRI5) 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 DISC1 (Disrupted in schizophrenia 1 protein) Fragment (aa 453-709) is a high-purity, soluble protein fragment designed for structural and biochemical studies. This 257-amino acid fragment represents a stable and soluble unit of DISC1, facilitating research into its roles in neurogenesis, Wnt signaling modulation, and neuronal development. The full-length Disrupted in schizophrenia 1 protein (DISC1), encoded by the DISC1 gene, is a key regulator of embryonic and adult neurogenesis. It supports neural progenitor proliferation in the ventricular/subventricular zone and adult hippocampus, modulates Wnt signaling by regulating GSK3B activity and CTNNB1 levels, and influences AKT-mTOR signaling to control neuronal integration, migration, and synapse formation. DISC1 also inhibits ATF4 transcription factor activity and collaborates with PCNT in microtubule network formation. Subcellularly, it localizes to the cytoplasm, cytoskeleton, mitochondria, centrosome, and postsynaptic density, often colocalizing with partners like NDEL1 and PCNT. This fragment (aa 453-709) was selected for its stability and solubility, enabling detailed mechanistic investigations into DISC1's functions.