Recombinant KCD11 protein (His tag)

Catalog Number	545184
Synonyms	KCASH1 protein; Potassium channel tetramerization domain-containing protein 11; RING-type E3 ubiquitin transferase subunit KCTD11
Species	Human
Expression System	E. coli
Accession	Q693B1
Molecular Weight	Predictes a molecular mass of 27.54 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	1-232
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-232 aa (Q693B1) 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	Introducing the recombinant BTB/POZ domain-containing protein KCTD11 (KCASH1) fragment, encompassing amino acids 1-232. This high-purity protein includes the complete BTB domain, making it an essential tool for investigating neuronal differentiation, Hedgehog pathway regulation, and tumor suppressor mechanisms in medulloblastoma research. The full-length KCTD11 protein, encoded by the KCTD11 gene in Homo sapiens, functions as a critical regulator of neuronal differentiation and tumor suppression. It serves as a marker upregulated by neurogenic signals including retinoic acid, EGF, and nerve growth factor. KCTD11 induces apoptosis, growth arrest, and CDKN1B expression while acting as a substrate-specific adapter for BCR E3 ubiquitin ligase complexes targeting HDAC1. Importantly, it antagonizes the Hedgehog pathway by preventing nuclear transfer of transcription factor GLI1, maintaining cerebellar granule cells in an undifferentiated state. This tumor suppressor activity is particularly relevant in medulloblastoma, where KCTD11 inhibits cell growth and tumorigenicity while activating the caspase cascade.