Recombinant SIM2 protein (His tag)

Catalog Number	540291
Synonyms	Class E basic helix-loop-helix protein 15; bHLHe15
Species	Human
Expression System	E. coli
Accession	Q14190
Molecular Weight	Predictes a molecular mass of 41.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	1-348
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-348 aa (Q14190) 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 is a fragment of Single-minded homolog 2 (SIM2), a Class E basic helix-loop-helix protein 15 (bHLHe15) from Homo sapiens. The fragment spans amino acids 1-348 and includes the full bHLH, PAS 1, PAS 2, and PAC domains, making it an ideal tool for investigating CNS development and transcriptional regulation mechanisms. Single-minded homolog 2 (SIM2) functions as a transcription factor that may act as a master gene in central nervous system (CNS) development, working in cooperation with Arnt. It exhibits pleiotropic effects across various tissues during developmental stages. The protein is localized to the nucleus, as supported by experimental evidence, underscoring its role in gene expression regulation.