Recombinant SIM1 protein (His tag)

Catalog Number	548944
Synonyms	Class E basic helix-loop-helix protein 14; bHLHe14
Species	Human
Expression System	E. coli
Accession	P81133
Molecular Weight	Predictes a molecular mass of 41.07 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	>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 1-348 aa (P81133) 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 Single-minded homolog 1 (SIM1) Fragment (1-348) is a high-purity protein encompassing the complete bHLH, PAS 1, PAS 2, and PAC domains. This fragment serves as an essential tool for investigating the transcriptional regulatory functions of SIM1 in embryogenesis and adult physiological processes, enabling targeted domain-specific studies. Single-minded homolog 1 (SIM1), encoded by the SIM1 gene in Homo sapiens, functions as a transcriptional factor with potential pleiotropic roles during embryogenesis and in adulthood. It is localized to the nucleus, where it regulates gene expression critical for developmental and cellular processes. The full-length protein's involvement in transcriptional mechanisms underscores its significance in studying developmental biology and gene regulation pathways.