Recombinant TIM protein (His tag)

Catalog Number	541553
Synonyms	hTIM
Species	Human
Expression System	E. coli
Accession	Q9UNS1
Molecular Weight	Predictes a molecular mass of 36.18 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	1-301
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 1-301 aa (Q9UNS1) 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 Protein timeless homolog (hTIM) fragment (residues 1-301) is a high-purity, stable protein designed for structural and biochemical studies. This fragment retains key solubility and stability characteristics, making it an ideal tool for investigating DNA replication, genome stability, and circadian clock regulation mechanisms in controlled experimental settings. Protein timeless homolog (hTIM), encoded by the TIMELESS gene, is a multifunctional nuclear protein essential for DNA replication fork stability, genome integrity maintenance, and circadian rhythm regulation. It forms a complex with TIPIN to stabilize replication forks under normal and stress conditions, regulates CMG complex activity during DNA unwinding and synthesis, and facilitates DNA repair processes—particularly in homologous recombination following double-strand breaks via PARP1 interaction. Additionally, hTIM influences circadian clock function by modulating PER protein localization and CLOCK-BMAL transactivation. The protein localizes predominantly to the nucleus and accumulates at DNA damage sites, underscoring its critical roles in cellular stress response and epigenetic timing mechanisms.