

Recombinant Human TWST1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51031

Size: 10ug, 100ug

Protein Name: Twist-related protein 1 (Class A basic helix-loop-helix protein 38) (bHLHa38) (H-twist)

Synonym: TWIST1, BHLHA38, TWIST

UniProt ID: Q15672

UniProt Link: www.uniprot.org/uniprotkb/Q15672/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 202 AA

Molecular Weight: 21 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MMQDVSSSPVSPADDSLSNSEEPPDRQQPPSGKRGGRKRRSSRRSAGGGAGPGGAAGGGVGG
GDEPGSPAQGKRGKKSAGCGGGGGAGGGGGSSSGGGSPQSYEELQTQRVMANVRERQRTQSL
NEAFAALRKIIPTLPSDKLSKIQTLKLAARYIDFLYQVLQSDDELDSKMASC SYVAHERLSYAFSVWRME
GAWSMSASH

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Twist-related protein 1 (Class A basic helix-loop-helix protein 38) (bHLHa38) (H-twist) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Acts as a transcriptional regulator. Inhibits myogenesis by sequestering E proteins, inhibiting trans-activation by MEF2, and inhibiting DNA-binding by MYOD1 through physical interaction. This interaction probably involves the basic domains of both proteins. Also represses expression of pro-inflammatory cytokines such as TNFA and IL1B. Regulates cranial suture patterning and fusion. Activates transcription as a heterodimer with E proteins. Regulates gene expression differentially, depending on dimer composition. Homodimers induce expression of FGFR2 and POSTN while heterodimers repress FGFR2 and POSTN expression and induce THBS1 expression. Heterodimerization is also required for osteoblast differentiation. Represses the activity of the circadian transcriptional activator: NPAS2-BMAL1 heterodimer (By similarity).

Subcellular Localization: Nucleus.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.