Recombinant T178A protein (His tag)

Catalog Number	550716
Species	Human
Expression System	E. coli
Accession	Q8NBL3
Molecular Weight	Predictes a molecular mass of 10.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 10 kDa band.

Product Information

Sequence Region	107-179
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 107-179 aa (Q8NBL3) 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 Transmembrane protein 178A (TMEM178A) fragment (residues 107-179) is a 73-amino acid protein designed for structural and biochemical studies. This fragment, computationally selected for stability and solubility, supports research into TMEM178A's role as a negative regulator of osteoclast differentiation, offering a reliable tool for investigating calcium signaling and NFATC1 induction pathways. Transmembrane protein 178A (TMEM178A), encoded by the TMEM178A gene in Homo sapiens, acts as a negative regulator of osteoclast differentiation under basal and inflammatory conditions. It functions by modulating TNFSF11-induced calcium fluxes, which in turn controls the induction of NFATC1, a key transcription factor in osteoclastogenesis. The full-length protein is localized to the endoplasmic reticulum membrane as a multi-pass membrane protein, highlighting its involvement in intracellular signaling processes. This recombinant fragment provides a focused approach to study TMEM178A's mechanistic contributions without the complexities of the full transmembrane structure.