# Recombinant TMX4 protein (His tag)

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| **Catalog Number** | 549641 |
| **Synonyms** | Thioredoxin domain-containing protein 13 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9H1E5 |
| **Molecular Weight** | Predictes a molecular mass of 20.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band. |

## Product Information

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| **Sequence Region** | 24-189 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 24-189 aa (Q9H1E5) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human TMX4 (Thioredoxin-related transmembrane protein 4) fragment encompassing amino acids 24-189, specifically designed to include the complete Thioredoxin domain (30-137). This high-quality protein fragment serves as an ideal tool for investigating the redox functions and biochemical properties of the Thioredoxin domain in isolation.<br>Thioredoxin-related transmembrane protein 4 (TMX4), also known as Thioredoxin domain-containing protein 13, is a human protein localized to both the nucleus inner membrane and endoplasmic reticulum membrane as a single-pass type I membrane protein. As a member of the thioredoxin protein family, TMX4 contains a conserved thioredoxin domain that typically functions in redox regulation and disulfide bond formation. The protein's dual localization to the nuclear envelope and endoplasmic reticulum suggests potential roles in maintaining redox homeostasis and protein folding quality control across these interconnected membrane systems. |