Recombinant MACOI protein (His tag)

Catalog Number	545437
Synonyms	Macoilin-1; Transmembrane protein 57
Species	Human
Expression System	E. coli
Accession	Q8N5G2
Molecular Weight	Predictes a molecular mass of 29.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	381-621
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 381-621 aa (Q8N5G2) 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 Macoilin-1 (Transmembrane protein 57) Fragment (aa 381-621) is a high-quality protein product designed for neuroscience and cellular biology research. This 241-amino acid fragment, derived from the MACO1 gene, represents a stable and soluble unit ideal for structural studies, biochemical assays, and functional investigations into neuronal activity regulation. Macoilin-1, encoded by the MACO1 gene in humans, plays a critical role in modulating neuronal activity, as evidenced by experimental data (PubMed:21589894). The protein is a multi-pass membrane protein localized to several key cellular compartments, including the nucleus membrane in non-neuronal cells, axonal projections in neuronal cells, and the rough endoplasmic reticulum membrane. This diverse subcellular distribution underscores its importance in cellular signaling and structural organization, particularly in neuronal contexts. The selected fragment (amino acids 381-621) was computationally optimized to ensure stability and solubility, facilitating experimental applications while retaining relevance to the protein's native functional and structural characteristics.