Recombinant LORF1 protein (His tag)

Catalog Number	548519
Synonyms	L1ORF1p; LINE retrotransposable element 1; LINE1 retrotransposable element 1
Species	Human
Expression System	E. coli
Accession	Q9UN81
Molecular Weight	Predictes a molecular mass of 35.51 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	55-338
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 55-338 aa (Q9UN81) 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 LINE-1 retrotransposable element ORF1 protein (L1ORF1p) fragment (residues 55-338) is a highly stable and soluble protein unit designed for structural and biochemical studies. This fragment retains key functional characteristics, making it an ideal tool for investigating the mechanisms of LINE-1 retrotransposition and nucleic acid chaperone activity in genome dynamics. The full-length L1ORF1p, encoded by the L1RE1 gene in Homo sapiens, is a nucleic acid-binding protein essential for the retrotransposition of LINE-1 elements in the genome. It functions as a nucleic acid chaperone, binding its own transcript to facilitate mobilization, which plays a critical role in genomic evolution and stability. L1ORF1p is predominantly localized in the cytoplasm, where it associates with cytoplasmic ribonucleoprotein granules and stress granules, and it is occasionally detected in the nucleus and nucleolus. This protein's activity is implicated in various cellular processes, including RNA metabolism and stress response, highlighting its significance in both normal and pathological contexts.