# Recombinant LACB2 protein (His tag)

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| **Catalog Number** | 545116 |
| **Synonyms** | Beta-lactamase-like protein 2 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q53H82 |
| **Molecular Weight** | Predictes a molecular mass of 34.46 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band. |

## Product Information

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| **Sequence Region** | 1-288 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >85%, 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 1-288 aa (Q53H82) 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** | Introducing the recombinant human Endoribonuclease LACTB2 (EC 3.1.27.-), a highly purified protein fragment encompassing amino acids 1-288. This fragment is designed for robust structural and biochemical studies, offering a stable and soluble unit ideal for investigating mitochondrial RNA processing and cellular viability mechanisms.<br>Endoribonuclease LACTB2, also known as Beta-lactamase-like protein 2, is a mitochondrial matrix enzyme that specifically cleaves single-stranded RNA 3' to purine-pyrimidine dinucleotide motifs, generating products with free 3'-OH groups. It exhibits no activity against double-stranded RNA or DNA. This protein is essential for maintaining normal mitochondrial function and cell viability, as demonstrated in studies linking it to critical cellular processes. Its localization within the mitochondrial matrix underscores its role in organelle-specific RNA metabolism, making it a key target for research into mitochondrial biology and associated pathways. |