Recombinant LACTB protein (His tag)

Catalog Number	542512
Species	Human
Expression System	E. coli
Accession	P83111
Molecular Weight	Predictes a molecular mass of 31.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	290-547
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 290-547 aa (P83111) 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 Serine beta-lactamase-like protein LACTB (Fragment 290-547) is a high-purity, soluble protein fragment designed for structural and biochemical studies. This fragment, derived from the mitochondrial serine protease LACTB, offers a stable and functional unit ideal for investigating its role in mitochondrial lipid metabolism and tumor suppression. The full-length Serine beta-lactamase-like protein LACTB is a mitochondrial serine protease that plays a critical role in regulating mitochondrial lipid metabolism. It functions by decreasing protein levels of PISD, an enzyme involved in converting phosphatidylserine to phosphatidylethanolamine, thereby influencing lipid composition within mitochondria. LACTB also acts as a tumor suppressor, inhibiting proliferation in various breast cancer cells, likely through its impact on mitochondrial lipid pathways. The protein is exclusively localized to the mitochondrion, as supported by multiple experimental evidences.