Recombinant MRS2 protein (His tag)

Catalog Number	539013
Synonyms	MRS2-like protein
Species	Human
Expression System	E. coli
Accession	Q9HD23
Molecular Weight	Predictes a molecular mass of 31.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	83-339
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 83-339 aa (Q9HD23) 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 Magnesium transporter MRS2 homolog, mitochondrial (MRS2-like protein) fragment (residues 83-339) is a high-purity, soluble protein designed for structural and functional studies. This 257-amino acid fragment, derived from the MRS2 gene, represents a stable domain ideal for investigating mitochondrial magnesium transport mechanisms and ion channel activity. The full-length Magnesium transporter MRS2 homolog is a multi-pass membrane protein localized to the mitochondrial inner membrane. It functions as a magnesium transporter that mediates magnesium influx into the mitochondrial matrix, playing a crucial role in regulating mitochondrial magnesium metabolism. Additionally, the protein demonstrates permeability to calcium, sodium, and potassium ions. MRS2 is essential for normal expression of mitochondrial respiratory complex I subunits and may contribute to maintaining the inner mitochondrial membrane potential, making it significant for understanding mitochondrial function and energy metabolism.