Recombinant NR0B2 protein (His tag)

Catalog Number	540346
Synonyms	Orphan nuclear receptor SHP; Small heterodimer partner
Species	Human
Expression System	E. coli
Accession	Q15466
Molecular Weight	Predictes a molecular mass of 25.59 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	41-257
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 41-257 aa (Q15466) 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 NR0B2 (41-257) is a high-quality protein fragment representing the stable core of Nuclear receptor subfamily 0 group B member 2 (Small heterodimer partner). This 217-amino acid fragment has been computationally optimized for superior solubility and stability, making it ideal for structural studies, biochemical assays, and functional investigations of this important transcriptional regulator. Nuclear receptor subfamily 0 group B member 2 (NR0B2), also known as Small heterodimer partner (SHP), functions as a key transcriptional regulator that negatively modulates receptor-dependent signaling pathways. This orphan nuclear receptor specifically inhibits transactivation of interacting nuclear receptors and suppresses NEUROD1 transcriptional activity by interfering with p300/CBP-mediated coactivation. NR0B2 serves as an essential component of the liver circadian clock, where it interacts with NR1D1 and RORG to regulate NPAS2-mediated hepatic lipid metabolism and controls the circadian expression of cytochrome P450 enzymes. The protein localizes primarily to the nucleus, where it colocalizes with NEUROD1, though it also exhibits cytoplasmic presence, reflecting its dynamic regulatory functions in cellular signaling and metabolic pathways.