Recombinant FXR2 protein (His tag)

Catalog Number	544670
Synonyms	FXR2P; FMR1 autosomal homolog 2
Species	Human
Expression System	E. coli
Accession	P51116
Molecular Weight	Predictes a molecular mass of 45.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	1-389
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 1-389 aa (P51116) 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 RNA-binding protein FXR2 (FXR2P) fragment (amino acids 1-389) is a high-purity protein designed for studying mRNA regulation and phase separation mechanisms. This fragment encompasses the complete Agenet-like 1, Agenet-like 2, KH 1, and KH 2 functional domains, making it an ideal tool for investigating RNA-binding activity and neurogenesis-related functions. FXR2 is an mRNA-binding protein that regulates mRNA translation and stability, particularly through binding to AU-rich elements (AREs) in target mRNAs. It plays a critical role in adult hippocampal neurogenesis by controlling the expression of proteins such as NOG in the dentate gyrus. The protein undergoes liquid-liquid phase separation to form membraneless compartments for mRNA storage, thereby modulating mRNA fate. FXR2 localizes to cytoplasmic ribonucleoprotein granules and postsynaptic regions, with its synaptic localization dependent on FMR1. These characteristics highlight its importance in neural development and RNA metabolism research.