Recombinant G3BP2 protein (His tag)

Catalog Number	548520
Synonyms	G3BP-2; GAP SH3 domain-binding protein 2
Species	Human
Expression System	E. coli
Accession	Q9UN86
Molecular Weight	Predictes a molecular mass of 17.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	2-139
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 2-139 aa (Q9UN86) 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 G3BP2 (2-139) is a high-purity protein fragment encompassing the NTF2 domain of Ras GTPase-activating protein-binding protein 2. This fragment serves as an essential tool for investigating the domain-specific mechanisms underlying stress granule assembly and RNA-dependent phase separation in cellular stress responses. G3BP2 is a scaffold protein critical for cytoplasmic stress granule formation, which function as membraneless compartments storing mRNAs and stalled translation complexes during cellular stress. It plays a key role in antiviral signaling and promotes stress granule assembly through liquid-liquid phase separation (LLPS) triggered by unfolded RNA binding. The protein localizes predominantly to the cytoplasm and stress granules, where it acts as a molecular switch responding to elevated intracellular RNA concentrations. The provided fragment (amino acids 2-139) contains the complete NTF2 domain, enabling focused study of this functional region's contribution to G3BP2's role in stress response pathways.