Recombinant FACD2 protein (His tag)

Catalog Number	538872
Synonyms	Protein FACD2
Species	Human
Expression System	E. coli
Accession	Q9BXW9
Molecular Weight	Predictes a molecular mass of 56.31 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 56 kDa band.

Product Information

Sequence Region	923-1398
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 923-1398 aa (Q9BXW9) 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 Fanconi anemia group D2 protein (FACD2) fragment (residues 923-1398) is a high-purity, stable, and soluble protein designed for structural and biochemical studies. This fragment, derived from the FANCD2 gene, retains key properties for investigating DNA repair mechanisms and chromosomal stability, making it an essential tool for researchers in genomics and molecular biology. The full-length Fanconi anemia group D2 protein (FACD2), encoded by the FANCD2 gene in Homo sapiens, is critical for maintaining chromosomal stability and facilitating DNA double-strand break repair through homologous recombination and single-strand annealing. It plays a vital role in meiosis by promoting accurate pairing of homologs and supports S and G2 phase checkpoint activation in response to DNA damage. The protein is predominantly nuclear, forming foci during S phase and under genotoxic stress, and it aids in stabilizing BLM at replication stress-induced structures and loading BRCA2/FANCD1 onto damaged chromatin. Its involvement in preventing chromatin breakage and B-cell immunoglobulin isotype switching underscores its importance in genomic integrity and immune function.