Recombinant XPC protein (His tag)

Catalog Number	542537
Synonyms	Xeroderma pigmentosum group C-complementing protein; p125
Species	Human
Expression System	E. coli
Accession	Q01831
Molecular Weight	Predictes a molecular mass of 41.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	526-865
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 526-865 aa (Q01831) 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 XPC Protein Fragment (526-865) - A high-quality recombinant protein representing a stable and soluble domain of the DNA repair protein complementing XP-C cells (Xeroderma pigmentosum group C-complementing protein). This 340-amino acid fragment is specifically designed for structural and biochemical studies of nucleotide excision repair mechanisms. The full-length XPC protein is a critical component of the global genome nucleotide excision repair (GG-NER) pathway, functioning as a damage sensing and DNA-binding factor in the XPC complex. It plays a fundamental role in recognizing a wide spectrum of DNA lesions characterized by helix distortions, including single-stranded loops, mismatched bubbles, and single-stranded overhangs. XPC initiates the repair process by forming the first stable complex at DNA damage sites and cooperates with other core recognition factors including XPA, RPA, and the TFIIH complex. Beyond its primary DNA repair function, XPC also acts as a transcription coactivator by interacting with E2F1 at specific promoters to recruit histone acetyltransferase complexes. The protein localizes primarily to the nucleus and chromosomes, with continuous shuttling between the cytoplasm and nucleus that is modulated by DNA damage presence.