Recombinant RADX protein (His tag)

Catalog Number	542902
Synonyms	RPA-related and RAD51-antagonist, X-chromosome
Species	Human
Expression System	E. coli
Accession	Q6NSI4
Molecular Weight	Predictes a molecular mass of 12.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	677-770
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 677-770 aa (Q6NSI4) 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 RADX (RPA-related and RAD51-antagonist, X-chromosome) fragment (residues 677-770) from Homo sapiens, designed for structural and biochemical studies. This 94-amino acid fragment represents a stable, soluble unit of the protein, ideal for investigating RADX's role in replication fork stability and genome maintenance. RADX is a single-stranded DNA-binding protein crucial for maintaining genome stability by localizing to replication forks. It prevents fork collapse by antagonizing RAD51 accumulation, thereby ensuring a proper balance between fork remodeling and protection. This regulatory function is essential for cellular viability and genomic integrity, as it allows homologous recombination to proceed normally at double-strand breaks without compromising fork stability. RADX is recruited directly to chromosomal replication forks, highlighting its central role in DNA replication and repair mechanisms.