Recombinant AEN protein (His tag)

Catalog Number	543258
Synonyms	Interferon-stimulated 20 kDa exonuclease-like 1
Species	Human
Expression System	E. coli
Accession	Q8WTP8
Molecular Weight	Predictes a molecular mass of 21.82 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	105-281
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 105-281 aa (Q8WTP8) 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	Introducing the recombinant human Apoptosis-enhancing nuclease (AEN) fragment (residues 105-281), a 177-amino acid protein that encompasses the full exonuclease domain. This fragment is engineered to serve as a powerful tool for investigating exonuclease activity, DNA damage response, and p53-mediated apoptotic pathways, enabling targeted functional studies in life science research. Apoptosis-enhancing nuclease (AEN), encoded by the AEN gene in Homo sapiens, is an exonuclease with demonstrated activity against both single- and double-stranded DNA and RNA. It plays a critical role in mediating p53-induced apoptosis, where it is upregulated following DNA damage. Upon activation, AEN digests double-stranded DNA to generate single-stranded DNA, amplifying DNA damage signals and enhancing apoptotic processes. Subcellularly, AEN predominantly localizes to the nucleolus but translocates to the nucleoplasm upon induction of apoptosis, highlighting its dynamic role in cellular stress response mechanisms.