Recombinant WT1 protein (His tag)

Catalog Number	544460
Synonyms	WT33
Species	Human
Expression System	E. coli
Accession	P19544
Molecular Weight	Predictes a molecular mass of 17.43 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	320-449
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 320-449 aa (P19544) 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 Wilms tumor protein (WT33) fragment (amino acids 320-449) from Homo sapiens, offering a stable and soluble unit for advanced structural and biochemical studies. This fragment is ideal for investigating the functional mechanisms of WT1, a key transcription factor involved in cellular development, survival, and urogenital system formation. Wilms tumor protein (WT1) is a transcription factor critical for cellular development and survival, binding to the DNA sequence 5'-GCG(T/G)GGGCG-3' and regulating target genes such as EPO. It plays essential roles in urogenital system development and exhibits dual functions as both a tumor suppressor and oncogene, depending on context. Functionality varies by isoform: isoforms without the KTS motif act primarily as transcription factors, while those with the KTS motif may participate in mRNA metabolism or splicing. The protein localizes to the nucleus, nucleolus, and cytoplasm, with isoforms shuttling between nuclear and cytoplasmic compartments. For instance, isoform 1 is found in nuclear speckles, and isoform 4 resides in the nucleoplasm. The recombinant fragment (320-449) was selected computationally to ensure stability and solubility, facilitating research into WT1's molecular interactions and disease implications.