Recombinant SP3 protein (His tag)

Catalog Number	544826
Synonyms	SPR-2
Species	Human
Expression System	E. coli
Accession	Q02447
Molecular Weight	Predictes a molecular mass of 11.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	620-704
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 620-704 aa (Q02447) 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 Transcription factor Sp3 (SPR-2) fragment (aa 620-704) is a highly stable and soluble protein unit, ideal for structural biology and biochemical studies. This 85-amino acid fragment retains key properties for investigating Sp3's dual role as a transcriptional activator or repressor, offering researchers a reliable tool for exploring gene regulation mechanisms. Transcription factor Sp3 is a versatile human protein that functions as both an activator and repressor of transcription, depending on isoform expression and post-translational modifications. It binds to GT and GC box promoter elements, competing with SP1 for GC-box promoters. While generally a weak transcriptional activator, Sp3 regulates diverse genes involved in cell-cycle progression, hormone response, and housekeeping functions. The protein localizes primarily to the nucleus, with specific accumulation at the nuclear periphery and in PML nuclear bodies when sumoylated. This nuclear distribution underscores its central role in gene expression control and cellular signaling pathways.