Recombinant SRY protein (His tag)

Catalog Number	540183
Synonyms	Testis-determining factor
Species	Human
Expression System	E. coli
Accession	Q05066
Molecular Weight	Predictes a molecular mass of 11.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	58-139
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 58-139 aa (Q05066) 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 SRY Protein Fragment (aa 58-139) is a high-quality, stable, and soluble protein fragment derived from the Sex-determining region Y protein (Testis-determining factor). This fragment is ideal for structural studies, biochemical assays, and functional analyses, offering researchers a reliable tool to investigate the molecular mechanisms of male sex determination and transcriptional regulation. The full-length Sex-determining region Y protein (SRY) is a critical transcriptional regulator that acts as a genetic switch in male development. It is both necessary and sufficient for initiating male sex determination by directing the differentiation of supporting cell precursors into Sertoli cells rather than granulosa cells. SRY functions by binding to the DNA consensus sequence 5'-[AT]AACAA[AT]-3' through its HMG box domain, promoting DNA bending and regulating gene expression via promoter activation or repression. Additionally, it plays a role in pre-mRNA splicing and, in the adult male brain, supports the motor functions of dopaminergic neurons. SRY localizes primarily to the nucleus, including nuclear speckles, and its subcellular distribution is influenced by post-translational modifications such as acetylation, which facilitates nuclear localization, while deacetylation can lead to cytoplasmic delocalization. Its nuclear import is also modulated by interactions with proteins like XPO4.