Recombinant FOXA1 protein (His tag)

Catalog Number	544717
Synonyms	HNF-3-alpha; HNF-3A; Forkhead box protein A1; Transcription factor 3A; TCF-3A
Species	Human
Expression System	E. coli
Accession	P55317
Molecular Weight	Predictes a molecular mass of 11.63 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	168-252
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 168-252 aa (P55317) 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 FOXA1 Protein Fragment (aa 168-252) is a high-purity, stable, and soluble protein fragment derived from Hepatocyte Nuclear Factor 3-alpha (HNF-3-alpha), a key pioneer transcription factor involved in chromatin remodeling and gene regulation. This 85-amino acid fragment is ideal for structural studies, biochemical assays, and functional analyses, offering researchers a reliable tool to investigate transcriptional mechanisms. The full-length FOXA1 protein, also known as Forkhead Box Protein A1, is a critical transcription factor in embryonic development and the establishment of tissue-specific gene expression, particularly in endoderm-derived organs such as the liver, pancreas, and lungs. It functions as a pioneer factor by opening compacted chromatin through interactions with nucleosomal histones, facilitating access for other proteins to enhancer and promoter regions. FOXA1 modulates the activity of nuclear hormone receptors, including estrogen receptor-mediated transcription, and plays roles in apoptosis inhibition, cell cycle regulation, and glucose homeostasis. It is localized to the nucleus and binds DNA with a specific consensus sequence, contributing to epigenetic programming and gene expression in differentiated tissues.