Human FoxP3 Protein, His Tag

Catalog # FO3-H5243

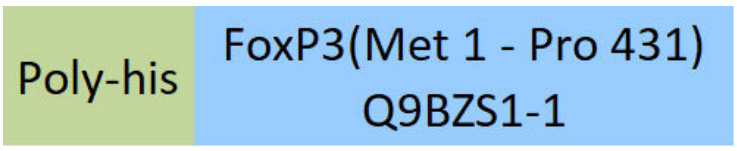
Synonym

Forkhead box protein P3,FOXP3,IPEX,JM2,AIID,PIDX,XPID,DIETER

Source

Human FoxP3 Protein, His Tag(FO3-H5243) is expressed from E. coli cells. It contains AA Met 1 - Pro 431 (Accession # Q9BZS1-1).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 49.1 kDa. The protein migrates as 51-53 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5 M Arginine, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

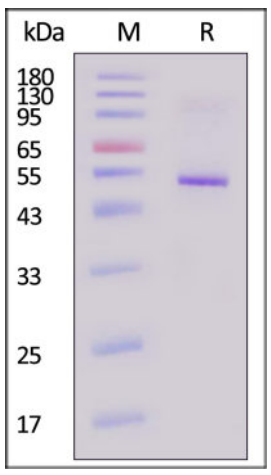
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

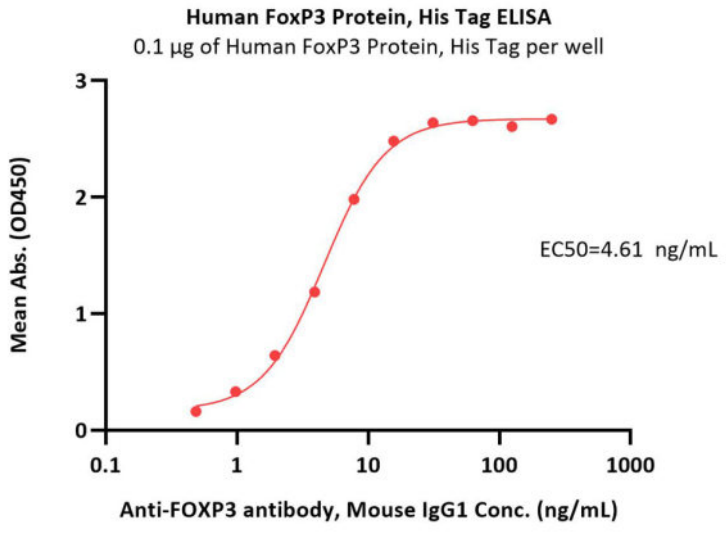
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human FoxP3 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



Immobilized Human FoxP3 Protein, His Tag (Cat. No. FO3-H5243) at 1 μg/mL (100 μL/well) can bind Anti-FOXP3 antibody, Mouse IgG1 with a linear range of 0.5-8 ng/mL (QC tested).

Background

FOXP3 is a transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg). It plays an essential role in maintaining homeostasis of the immune system by allowing the acquisition of full suppressive function and stability of the Treg lineage, and by directly modulating the expansion and function of conventional T-cells. Can act either as a transcriptional repressor or a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases. The suppressive activity of Treg involves the coordinate activation of many genes, including CTLA4 and TNFRSF18 by FOXP3 along with repression of genes encoding cytokines such as interleukin-2 (IL2) and interferon-gamma (IFNG). Defects in this gene are the cause of immunodeficiency polyendocrinopathy, enteropathy, X-linked syndrome (IPEX), also known as X-linked autoimmunity-immunodeficiency syndrome.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.