

**Synonym**

Follicle Stimulating Hormone

**Source**

Human FSH alpha & beta Heterodimer Protein, His Tag(FSA-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 25 - Ser 116 (FSH alpha) & Asn 19 - Glu 129 (FSH beta) (Accession # [P01215](#) (FSH alpha) & [P01225](#) (FSH beta)).

Predicted N-terminus: Asn 19

**Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 25.5 kDa. The protein migrates as 40-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.1 EU per µg by the LAL method.

**Purity**

&gt;90% as determined by SDS-PAGE.

&gt;90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, 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.*

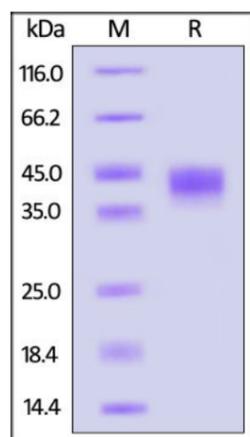
**Storage**

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

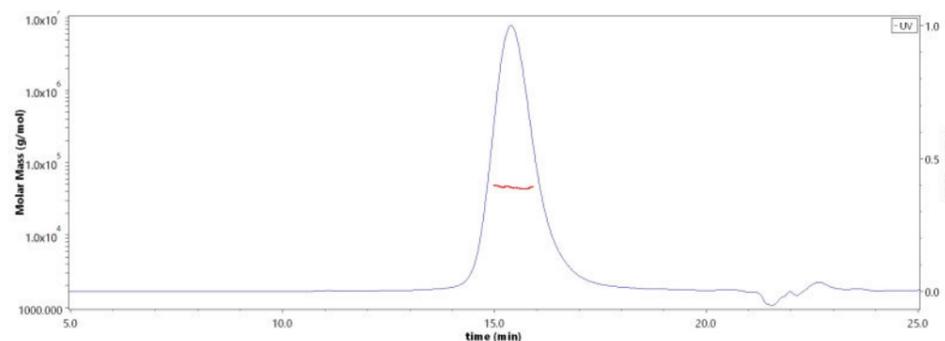
*Please avoid repeated freeze-thaw cycles.*

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 FSH alpha & beta Heterodimer 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%.

**SEC-MALS**

The purity of Human FSH alpha & beta Heterodimer Protein, His Tag (Cat. No. FSA-H52H3) is more than 90% and the molecular weight of this protein is around 40-50 kDa verified by SEC-MALS.

[Report](#)

**Background**

Follicle-stimulating hormone (FSH) is a gonadotropin, a glycoprotein polypeptide hormone. FSH is synthesized and secreted by the gonadotropic cells of the anterior pituitary gland and regulates the development, growth, pubertal maturation, and reproductive processes of the body. FSH and luteinizing hormone (LH) work together in the reproductive system. FSH is a 35.5 kDa glycoprotein heterodimer, consisting of two polypeptide units, alpha and beta. Its structure is similar to those

of luteinizing hormone (LH), thyroid-stimulating hormone (TSH), and human chorionic gonadotropin (hCG). The alpha subunits of the glycoproteins LH, FSH, TSH, and hCG are identical and consist of 96 amino acids, while the beta subunits vary. Both subunits are required for biological activity. FSH has a beta subunit of 111 amino acids (FSH  $\beta$ ), which confers its specific biologic action, and is responsible for interaction with the follicle-stimulating hormone receptor.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.