

### Synonym

Spike,S protein,Spike glycoprotein,S glycoprotein

### Source

HCoV-229E Spike Protein, His Tag (SPN-H52H3) is expressed from human 293 cells (HEK293). It contains AA Cys 16 - Pro 1115 (Accession # [P15423-1](#) (TI 871-872 PP)).The recombinant protein is expressed from human 293 cells (HEK293) with T4 fibrin trimerization motif and a polyhistidine tag at the N-terminus. Proline substitutions TI 871-872 PP are introduced to stabilize the trimeric prefusion state of the spike protein.

Predicted N-terminus: Cys 16

### Molecular Characterization

Spike protein(Cys 16 - Pro 1115) P15423-1	Poly-his
--	----------

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

The protein has a calculated MW of 125.7 kDa. The protein migrates as 150-200 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### 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. Normally trehalose is added as protectant before lyophilization.

### 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

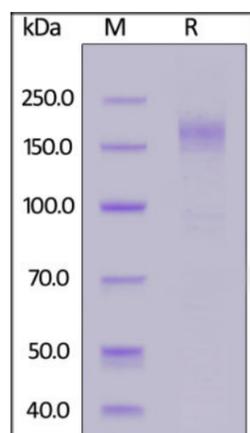
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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



HCoV-229E Spike protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

### Background

Human coronavirus 229E (HCoV-229E) is one of seven known coronaviruses to infect humans. Likely originated from bats, it is an enveloped, positive-sense, single-stranded RNA virus which enters its host cell by binding to the APN receptor. Along with Human coronavirus OC43 (a member of the Betacoronavirus

genus), it is one of the viruses responsible for the common cold. The spike protein of HCoV-229E is a trimer with subunits S1 and S2 responsible for host receptor binding and fusion of the viral and host cell membranes, respectively.

### Clinical Research Updates

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