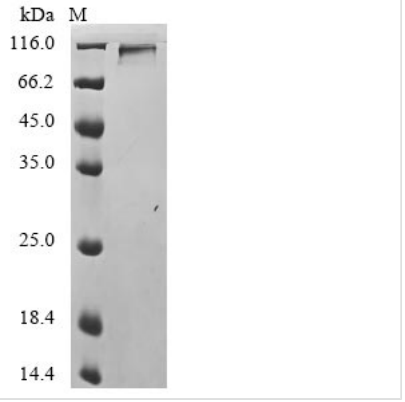
Recombinant Influenza A virus Hemagglutinin (HA), partial

Product Code	CSB-MP3563GMC
Abbreviation	Recombinant Influenza A virus HA protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	A0A6G5V115
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol.If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Influenza A virus
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	DTICVGYHANNSTDTVDTILEKNVTVTHSVNLLENSHNGKLCSLNGKIPLQLGN CNVAGWILGNPKCDLLLTANSWSYIIETSNSKNGACYPGEFADYEELKEQLST VSSFERFEIFPKATSWPNHDTTRGTTVACSHSGANSFYRNLLWIVKKGNSYPK LSKSYTNNKGKEVLVIWGVHHPPTESDQQTLYQNNHTYVSVGSSKYYKRFTP EIVARPKVREQAGRMNYYWTLLDQGDTITFEATGNLIAPWHAFALKKGSSSGI MRSDAQVHNCTTKCQTPHGALKGNLPFQNVHPVTIGKCPKYVKSTQLRMATG LRNIPSIQSRGLFGAIAGFIEGGWTGMVDGWYGYHHRNEQGSGYAADQKSTQ IAIDGISNKVNSVIEKMNIQFTSVGKEFNSLEKRMENLNKKVDDGFLDVWTYNA ELLILLENERTLDFHDLNVKNLYEKVKSQLRNNAKEIGNGCFEFYHKCDNECME SVKNGTYNYPKYSEESKLNREEIDGVKLESMGIHQ
Research Area	Immunology
Source	Mammalian cell
Target Names	HA
Expression Region	18-529aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal hFc1-tagged
Mol. Weight	86.4 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant Influenza A virus Hemagglutinin (HA) is expressed in a mammalian cell system and features a C-terminal hFc1 tag. This partial protein covers the 18-529 amino acid region and shows a purity greater than 90% as confirmed by SDS-PAGE analysis. Designed for research use, it appears to provide a reliable reagent for various scientific applications.

Hemagglutinin (HA) is a crucial surface glycoprotein of the Influenza A virus. It plays a vital role in viral entry into host cells by mediating binding to sialic acid receptors. This protein represents a key target for vaccine development and antiviral research, since it's responsible for the initial steps of infection and is a major determinant of host range and virus transmission.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Antibody Development and Characterization Studies

This recombinant HA protein can serve as an immunogen or antigen in research focused on developing and characterizing influenza-specific antibodies. The C-terminal hFc1 tag makes purification and immobilization easier for various immunoassays. Meanwhile, the mammalian expression system appears to ensure proper protein folding and post-translational modifications. Researchers can use this protein to screen hybridoma clones, evaluate antibody binding specificity, or assess cross-reactivity patterns. The high purity level (>90%) may make it suitable for generating reliable and reproducible immunological data.

2. Protein-Protein Interaction Studies

The hFc1 tag enables pull-down assays and co-immunoprecipitation experiments to investigate HA interactions with host cell receptors or other viral proteins. The tag provides a convenient handle for immobilization on protein A/G beads or columns. This approach allows researchers to capture HA-binding partners from cell lysates or purified protein mixtures. Such methods can help

elucidate molecular mechanisms of viral entry and identify potential host factors involved in influenza infection pathways.

3. ELISA-Based Binding and Competition Assays

The recombinant HA protein can be used as a coating antigen or capture reagent in enzyme-linked immunosorbent assays for various research applications. The hFc1 tag allows for oriented immobilization via anti-Fc antibodies, which may improve assay sensitivity and reproducibility. Researchers can use this protein to study receptor binding kinetics, evaluate inhibitor compounds, or assess the binding capacity of different antibody preparations in controlled laboratory settings.

4. Structural and Biochemical Characterization

This purified HA protein serves as suitable material for biophysical and biochemical analyses to understand influenza hemagglutinin properties. The mammalian expression system and high purity level make it appropriate for techniques such as dynamic light scattering, analytical ultracentrifugation, or mass spectrometry studies. Researchers can investigate protein stability, aggregation behavior, or conformational changes under different buffer conditions. These studies may advance fundamental understanding of HA structure-function relationships.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.