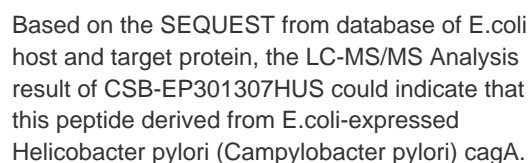
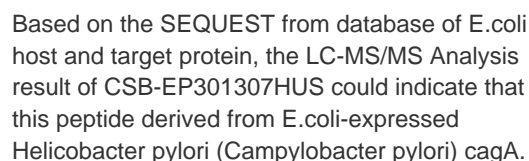




# Recombinant Helicobacter pylori Cytotoxicity-associated immunodominant antigen (cagA), partial

|                            |   |
|----------------------------|---|
| <b>Product Code</b>        | CSB-EP301307HUS   |
| <b>Relevance</b>           | May be necessary for the transcription, folding, export, or function of the cytotoxin.  |
| <b>Storage</b>             | 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. |
| <b>Uniprot No.</b>         | P80200  |
| <b>Alias</b>               | 120 kDa protein   |
| <b>Product Type</b>        | Recombinant Protein   |
| <b>Immunogen Species</b>   | Helicobacter pylori (Campylobacter pylori)  |
| <b>Purity</b>              | Greater than 90% as determined by SDS-PAGE.   |
| <b>Sequence</b>            | KVNAKIDRLNQIASGLGVVGQAAGFPLKRHDKVDDL SKVGLSRNQELA QKIDN<br>LNQAVSEAKAGFFGNLEQTIDKLKDKSTKHNP MNLWVESAKKVPASLSAKLDNY<br>ATNSHIRINSNIKNGAINEKATGMLTQKNPEWLKLVNDKIVAHNVG SVPLSEYD<br>KIGFNQKNMKDYSDSFKFSTKLNN AVKDTNSGFTQFLTNAFSTASY YCLAREN<br>AEHGIKNVNTKGGFQKS                   |
| <b>Lead Time</b>           | 3-7 business days   |
| <b>Research Area</b>       | Microbiology  |
| <b>Source</b>              | E.coli  |
| <b>Gene Names</b>          | cagA  |
| <b>Expression Region</b>   | 918-1147aa  |
| <b>Notes</b>               | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.   |
| <b>Tag Info</b>            | N-terminal 6xHis-SUMO-tagged  |
| <b>Mol. Weight</b>         | 41.3kDa   |
| <b>Protein Description</b> | Partial   |
| <b>Image</b>               |   |



The recombinant *Helicobacter pylori* cagA was expressed with the amino acid range of 918-1147. This cagA protein is expected to have a theoretical molecular weight of 41.3 kDa. This cagA recombinant protein is manufactured in *e.coli*. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of cagA, which enables a simple process of detecting and purifying the cagA recombinant protein in the following steps.

The *Helicobacter pylori* cytotoxicity-associated immunodominant antigen (cagA) is a crucial virulence factor associated with certain strains of *H. pylori*, a bacterium that infects the human stomach. CagA is delivered into gastric epithelial cells by a type IV secretion system (T4SS), which is encoded by the cag pathogenicity island (cagPAI). Once inside the host cell, CagA undergoes phosphorylation by host cell kinases, leading to alterations in various cellular signaling pathways. Phosphorylated CagA has been linked to disruption of cell polarity, cell-cell adhesion, and the induction of pro-inflammatory responses. Additionally, chronic infection with cagA-positive *H. pylori* strains is associated with an increased risk of developing peptic ulcers and gastric cancer. The molecular mechanisms by which CagA influences host cell processes are complex and involve its interactions with various host cell proteins. Understanding the role of CagA in *H. pylori* pathogenesis is crucial for developing strategies to manage and prevent associated diseases.

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.