



# Recombinant Rat Complement factor I (Cfi)

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| <b>Product Code</b>      | CSB-EP005279RA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Abbreviation</b>      | Cfi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>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>       | Q9WUW3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Product Type</b>      | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Immunogen Species</b> | Rattus norvegicus (Rat)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>            | ≥85% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Sequence</b>          | KN TPASGQPQED LVEQKCLLKN YTHHSCDKVF CQPWQKCIEG<br>TCACKLPYQC PKAGTPVCAT NGRGYPTYCH LKSFECLEHPE IKFSNNGTCT<br>AEEKFNVSLI YGSTDTEGIV QVKLVDQDEK MFICKNSWST VEANVACFDL<br>GFPLGVRDIQ GRFNIPVNHK INSTECLHVR CQGVETSLAE CTFTKKSSKA<br>PHGLAGVVCY TQDADFPTSQ SFQCVNGKRI PQEKACDGVN DCGDQSDELG<br>CKGCRGQAFL CKSGVCIPNQ RKCNGEVDGI TGEDESGCEE DKKNKIHKGL<br>ARSDQGGETE IETEETEMLT PDMDTERKRI KSLLPKLSCG VKRNTHIRRK<br>RVVGGKPAEM GDYPWQVAIK DGDRITCGGI YIGGCWILTA AHCVRPSRYR<br>NYQVWTSLLD WLKPNSQLAV QGVSRRVVHE KYNGATYQND IALVEMKKHP<br>GKKECELINS VPACVPWSPY LFPNDRCII SGWGREKDNQ KVYSLRWGEV<br>DLIGNCSRFBY PGRYYEKEMQ CAGTSDGSID ACKGDSGGPL VCKDVNNVTY<br>VWGIVSWGEM CGKPEFPGVY TRVASYFDWI SYYVGRPLVS QYNV |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Target Names</b>      | Cfi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Protein Names</b>     | Recommended name: Complement factor I EC= 3.4.21.45 Alternative name(s): C3B/C4B inactivator Cleaved into the following 2 chains: 1. Complement factor I heavy chain 2. Complement factor I light chain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Expression Region</b> | 19-604                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <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>          | Tag type will be determined during the manufacturing process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Length</b>    | Full Length of Mature Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Target Details</b>    | This gene encodes a serine proteinase that is essential for regulating the complement cascade. The encoded preproprotein is cleaved to produce both heavy and light chains, which are linked by disulfide bonds to form a heterodimeric glycoprotein. This heterodimer can cleave and inactivate the complement components C4b and C3b, and it prevents the assembly of the C3 and C5 convertase enzymes. Defects in this gene cause complement factor I deficiency, an autosomal recessive disease associated with a susceptibility to                                                                                                                                                                 |



pyogenic infections. Mutations in this gene have been associated with a predisposition to atypical hemolytic uraemic syndrome, a disease characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. Primary glomerulonephritis with immune deposits is another condition associated with mutation of this gene.

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**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.

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**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.