

Recombinant Human Complement Component 2, His-tagged

Cat. No. C2-598H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human complement component 2 (C2) was produced in <i>Human Cells (HEK293)</i> and fused with a C-terminal his tag.
Species	Human
Source	HEK293
Description	Complement component C2 is part of the classical complement pathway which plays a major role in innate immunity against infection. C2 is a glycoprotein synthesized in liver hepatocytes and several other cell types in extrahepatic tissues. This pathway is triggered by a multimolecular complex C1, and subsequently the single-chain form of C2 is cleaved into two chains referred to C2a and C2b by activated C1. C2a containing a serine protease domain combines with complement component C4b to form the C3 convertase C4b2a which is responsible for C3 activation, and leads to the stimulation of adaptive immune responses via Lectin pathway. Deficiency of C2 (C2D) is the most common genetic deficiency of the complement system, and two types of C2D have been recognized in the context of specific MHC haplotypes. C2D in human is reported to increase susceptibility to infection, and is associated with certain autoimmune diseases, such as rheumatological disorders.
Molecular Mass	The single-chain form of recombinant human complement component C2 comprises 743 amino acids and has a calculated molecular mass of 82.5kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhC2 is 90-100 kDa as a result of glycosylation.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Predicted N Terminal	Ala 21.
Endotoxin	<1.0EU per 1µg of the cytokine as determined by the LAL method.
Formulation	Supplied as a 0.2µm filtered solution of 100mM Glycine, 10mM NaCl, 50 mM Tris, pH7.4.
Reconstitution	Follow the instructions on the vial. Centrifuge the vial at 4°C before opening to recover the entire contents.
Purity	>97%, as determined by SDS-PAGE and SEC-HPLC Analysis.
Stability	Samples are stable for up to twelve months from date of receipt -70°C.
Storage	Store at –70°C; Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	C2 complement component 2 [Homo sapiens]
Synonyms	C2; complement component 2; CO2; DKFZp779M0311; C3/C5 convertase; complement component C2; Complement C2; complement component 2; EC 3.4.21.43; OTTHUMP00000029277; OTTHUMP00000062690
Gene ID	717
mRNA Refseq	NM_000063
Protein Refseq	NP_000054
MIM	217000

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UniProt ID	P06681
Chromosome Location	6p21.3
Pathway	Complement and coagulation cascades; Systemic lupus erythematosus; Signaling in Immune system
Function	peptidase activity; serine-type endopeptidase activity
PDB rendering based on 2i6q.	