Complement Component 4b (C4B) Mouse Recombinant Protein

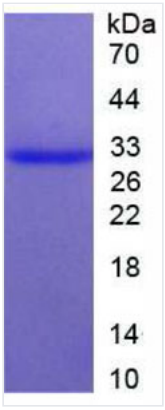
PRODUCT OVERVIEW

Product Name	Complement Component 4b (C4b), Recombinant Protein
Full Product Name	Recombinant Complement Component 4b (C4b)
Product Gene Name	C4b recombinant protein
Host	E. coli
Species Reactivity	Mouse
Form/Format	100mM $NaHCO_3$, 500mM NaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5%Trehalose and Proclin300.
Purity/Purification	>96%
Concentration	200μg/mL (lot specific)
Preparation and Storage	**Storage:** Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. **Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Biotin Conjugated Antibody: C4b (MBS2003148) Immunogen: C4b (MBS2010348)
Matching Pairs	Unconjugated Antibody: C4b (MBS2003827) Immunogen: C4b (MBS2010348)
Matching Pairs	FITC Conjugated Antibody: C4b (MBS2014937) Immunogen: C4b (MBS2010348)
Matching Pairs	APC-CY7 Conjugated Antibody: C4b (MBS2053694) Immunogen: C4b (MBS2010348)
Matching Pairs	PE Conjugated Antibody: C4b (MBS2053695) Immunogen: C4b (MBS2010348)
Matching Pairs	APC Conjugated Antibody: C4b (MBS2053696) Immunogen: C4b (MBS2010348)
Matching Pairs	Cy3 Conjugated Antibody: C4b (MBS2053697) Immunogen: C4b (MBS2010348)
Matching Pairs	HRP Conjugated Antibody: C4b (MBS2053698) Immunogen: C4b (MBS2010348)
Chromosome Location	Chromosome: 17; NC_000083.6 (34727966..34743905, complement). Location: 17 B1; 17 18.29 cM
3D Structure	ModBase 3D Structure for P01029
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Source	Prokaryotic expression
Residues	Gln126~Ser366
Tags	N-terminal His-Tag

Subcellular Location	Secreted
Traits	Freeze-dried powder
Predicted isoelectric point	8.7
Predicted Molecular Mass	31.1kDa
Accurate Molecular Mass	31kDa as determined by SDS-PAGE reducing conditions
Usage	Reconstitute in 100mM $NaHCO_3$, 500mM NaCl (pH8.3) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for C4b recombinant protein	Positive Control, Immunogen, SDS-PAGE, WB. (May be suitable for use in other assays to be determined by the end user.)
Related Product Information for C4b recombinant protein	MBS2010348 is a recombinant protein targeting C4b. Also known as Recombinant Complement Component 4b (C4b). Reactive in Mouse. Host: E. coli.
Other Notes	Small volumes of C4b recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

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                          QGVNL LFSSRRGHIF VQTDQPIYNP
GQRVRYRVFA LDQKMRPSTD FLTITVENSH GLRVLKKEIF TSTSIFQDAF
TIPDISEPGT WKISARFSDG LESNRSTHFE VKKYVLPNFE VKITPWKPYI
LMVPSNSDEI QLDIQARYIY GKPVQGVAYT RFALMDEQGK RTFLRGLETQ
AKLVEGRTHI SISKDQFQAA LDKINIGVRD LEGLRLYAAT AVIESPGGEM
EEAELTSWRF VSSAFS
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Sequence of C4b recombinant protein



SDS-PAGE of C4b recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for C4b. It may not necessarily be applicable to this product.

NCBI GI #	157951698
NCBI GeneID	12268
NCBI Accession #	NP_033910.2
UniProt Primary Accession #	P01029
UniProt Secondary Accession #	O70346; Q31201; Q3TYY1; Q3TZC9; Q61372; Q61859; Q62353; Q6NWV8; E9QKK7
UniProt Related Accession #	P01029
GenBank Nucleotide #	NM_009780.2
NCBI Official Full Name	complement C4-B
NCBI Official Synonym Full Names	complement component 4B (Chido blood group)
NCBI Official Symbol	C4b
NCBI Official Synonym Symbols	C4; Ss
UniProt Protein Name	Complement C4-B

Protein Family	Complement C4
UniProt Gene Name	C4b
UniProt Synonym Gene Names	C4
UniProt Entry Name	CO4B_MOUSE
NCBI Protein Information	complement C4-B; complement component 4 (within H-2S); complement component 4B (Childo blood group)
UniProt Comments for C4b	C4B: C4 plays a central role in the activation of the classical pathway of the complement system. It is processed by activated C1 which removes from the alpha chain the C4a anaphylatoxin. The remaining alpha chain fragment C4b is the major activation product and is an essential subunit of the C3 convertase (C4b2a) and the C5 convertase (C3bC4b2a) enzymes of the classical complement pathway. Defects in C4B are a cause of susceptibility to systemic lupus erythematosus (SLE). A chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system. Interindividual copy- number variation (CNV) of complement component C4 and associated polymorphisms result in different susceptibilities to SLE. The risk of SLE susceptibility has been shown to be significantly increased among subjects with only two copies of total C4. A high copy number is a protective factor against SLE. Defects in C4B are the cause of complement component 4B deficiency (C4BD). A rare defect of the complement classical pathway associated with the development of autoimmune disorders, mainly systemic lupus with or without associated glomerulonephritis. Protein type: Secreted; Secreted, signal peptide Cellular Component: extracellular space; extracellular region Molecular Function: complement binding; complement component C1q binding; carbohydrate binding Biological Process: immunoglobulin mediated immune response; complement activation
Research Articles on C4b	**1.** Data indicate complement C3 deposition on peanut extract (PE) was abolished in immunoglobulin- and C4-deficient sera.
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