Active Recombinant Mouse Complement Component 1, R Subcomponent B, His-tagged

Cat. No. C1rb-453M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse C1rbprotein was expressed in Murine myeloma cell line. Met1-Asn707, witha C terminal 6 His tag.
Species	Mouse
Source	Mammalian Cells
ProteinLength	1-707 a.a.
Description	Theclassical complement pathway plays a major role in innate immunity againstinfection. This pathway is triggered by C1, a multimolecular complex composedof the recognition protein C1q and two serine proteases, C1r and C1s.Following the C1q recognition, C1r is autoactivated, and in turn activatesC1s, which cleaves C4 and C2, the C1 substrates. Both C1r and C1s activationinvolve cleavage of a specific ArgIle bond, converting the singlechain proenzymesinto active proteases composed of disulfidelinked heavy and light chains. Theheavy chain contains multiple domains in the order of CUB1EGFCUB2CCP1CCP2Activation Peptide. The light chain contains the serineprotease catalytic domain.
Form	Supplied as a 0.2 umfiltered solution in Tris, CaCl, NaCl, and Glycerol.
N-terminalSequence	Ser17 and Ile463
MolecularWeight	51 kDa (heavy chain)& 28 kDa (light chain)

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

Activity	Measured by its ability to cleave a colorimetricpeptide substrate, NcarbobenzyloxyGly ArgThioBenzyl ester, in the presence of5.5 Dithiobis (2nitrobenzoic acid). The specific activity is > 5500pmol/min/µg, as measured under the described conditions. See Activ ity AssayProtocol.
Endotoxin Level	<1.0EU per 1 µg of the protein by the LAL method.
Purity	>80%,by SDSPAGE under reducing conditions and visualized by Colloidal CoomassieBlue stain at 5 µg per lane.
Storage	Use amanual defrost freezer and avoid repeated freezethaw cycles. 6 monthsfrom date of receipt, 20 to 70°C as supplied. 3 months, 20 to 70°C understerile conditions after opening.

GENE INFORMATION

Gene Name	C1rb complement component 1, rsubcomponent B [Mus musculus]
Official Symbol	C1rb
Synonyms	C1rb;complement component 1, r subcomponent B; mC1rB; Gm8551; complementC1r-B subcomponent; complement component C1rb; complement component 1subcomponent r-B; complement component 1, r-B subcomponent; EC 3.4.21.41
Gene ID	667277
mRNA Refseq	NM_001113356
Protein Refseq	NP_001106827

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UniProt ID	Q8CFG9
Chromosome Location	6
Pathway	Classicalantibody-mediated complement activation; Complement Activation; Complementand Coagulation Cascades; Complement cascade; Creation of C4 and C2activators; Immune System; Initial triggering of complement; Innate ImmuneSystem
Function	calcium ion binding;catalytic activity; hydrolase activity; molecular_function; peptidaseactivity; serine-type endopeptidase activity; serine-type peptidase activity

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