

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 C1rb protein was expressed in Murine myeloma cell line. Met1-Asn707, with a C terminal 6 His tag.
Species	Mouse
Source	Mammalian Cells
Protein Length	1-707 a.a.
Description	The classical complement pathway plays a major role in innate immunity against infection. This pathway is triggered by C1, a multimolecular complex composed of the recognition protein C1q and two serine proteases, C1r and C1s. Following the C1q recognition, C1r is autoactivated, and in turn activates C1s, which cleaves C4 and C2, the C1 substrates. Both C1r and C1s activation involve cleavage of a specific Arg-Ile bond, converting the single chain proenzymes into active proteases composed of disulfide-linked heavy and light chains. The heavy chain contains multiple domains in the order of CUB1EGFCUB2CCP1CCP2Activation Peptide. The light chain contains the serine protease catalytic domain.
Form	Supplied as a 0.2 umfiltered solution in Tris, CaCl, NaCl, and Glycerol.
N-terminal Sequence	Ser17 and Ile463
Molecular Weight	51 kDa (heavy chain) & 28 kDa (light chain)

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Activity	Measured by its ability to cleave a colorimetric peptide substrate, NcarbobenzyloxyGly ArgThioBenzyl ester, in the presence of 5.5 Dithiois (2nitrobenzoic acid). The specific activity is > 5500 pmol/min/μg, as measured under the described conditions. See Activity Assay Protocol.
Endotoxin Level	<1.0 EU per 1 μg of the protein by the LAL method.
Purity	>80%, by SDS PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain at 5 μg per lane.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, 20 to 70°C as supplied. 3 months, 20 to 70°C under sterile conditions after opening.

GENE INFORMATION

Gene Name	C1rb complement component 1, r subcomponent B [Mus musculus]
Official Symbol	C1rb
Synonyms	C1rb; complement component 1, r subcomponent B; mC1rB; Gm8551; complement C1r-B subcomponent; complement component C1rb; complement component 1 subcomponent 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	Classical antibody-mediated complement activation; Complement Activation; Complement and Coagulation Cascades; Complement cascade; Creation of C4 and C2 activators; Immune System; Initial triggering of complement; Innate Immune System
Function	calcium ion binding; catalytic activity; hydrolase activity; molecular_function; peptidase activity; serine-type endopeptidase activity; serine-type peptidase activity

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