

Recombinant Human Complement C1r subcomponent Protein

Catalog No.: RP00142 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	715	P00736

Tags

C-His

Synonyms

C1R;EDSPD1

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
79.05 kDa	23, 37 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

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. C1r acts by transforming the activation signal into an enzymic activity. C1r is a single-chain glycoprotein which can be cleaved into an A chain and a B chain upon activation. This protein recognizes full-length C1r chain and the cleaved B chain.

Basic Information

Description

Recombinant Human Complement C1r subcomponent Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Asp705) of human Complement C1r subcomponent (Accession #NP_001724.3) fused with a 6xHis tag at the C-terminus.

Bio-Activity

Measured by its ability to cleave a colorimetric peptide substrate, N-carbobenzyloxy-Gly-Arg-ThioBenzyl ester (Z-GR-SBzl), in the presence of 5,5'-Dithio-bis (2-nitrobenzoic acid) (DTNB). The specific activity is >2828 pmol/min/μg, as measured under the described conditions.

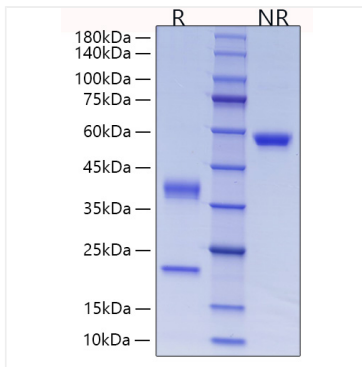
Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Complement C1r subcomponent Protein was resolved with SDS PAGE under reducing (R) and non-reducing (NR) conditions showing single bands at 23,37 kDa and 60 kDa, respectively.