Human Complement Component C1r Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1807

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Complement Component C1r in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Complement Component C1s is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Complement Component C1r Ser18-Asp705 Accession # NP_001724
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Complement Component C1r (Catalog # 1807-SE)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Complement Component C1r (Catalog # 1807-SE), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 (1). Both C1r and C1s activation involve cleavage of a specific Arg-Ile bond, converting single-chain proenzymes into active proteases of disulfide bond-linked chains (A and B) (2). The A chains contain multiple domains in the order of CUB1-EGF-CUB2-CCP1-CCP2-Activation Peptide. The B chains contain the serine protease catalytic domain. The full-length (amino acid residues 1-705) of human C1r was expressed, which had the Leu152 natural variant (3). The purified protein corresponded to the processed active form, with A and B chains starting at residue Ser18 and Ile464, respectively.

References:

1. Arlaud, G.J. *et al.* (2002) Biochem. Soc. Trans. **30**:1001.
2. Lacroix, M. *et al.* (2001) J. Biol. Chem. **276**:36233.
3. Journet A. and M. Tosi (1986) Biochem. J. **240**:783.

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