

# C1r (N-18): sc-46817

## BACKGROUND

The complement component proteins, C1, C3, C4, and C5, are potent anaphylatoxins that are released during complement activation. Binding of these proteins to their respective G protein-coupled receptors induces proinflammatory events, such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation, and cellular chemotaxis. C1q, together with proenzymes C1r and C1s, yield C1, the first component of the classical pathways of the serum complement system. C1 consists of a calcium dependent trimolecular complex of C1r, C1s and C1q in a 2:2:1 ratio. C1r is a dimer formed of two identical chains that are activated by cleavage into two chains, A and B.

## REFERENCES

1. Nothen, M.M. et al. 1994. A common amino acid polymorphism in complement component C1r. *Hum. Mol. Genet.* 3: 217.
2. Pelloux, S. et al. 1996. Identification of a cryptic protein kinase CK2 phosphorylation site in human complement protease C1r, and its use to probe intramolecular interaction. *FEBS Lett.* 386: 15-20.

## CHROMOSOMAL LOCATION

Genetic locus: C1R (human) mapping to 12p13.31; C1ra/C1rb (mouse) mapping to 6 F2.

## SOURCE

C1r (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of C1r of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

C1r (N-18) is recommended for detection of mature C1r and C1r precursor of human origin and C1ra and C1rb of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C1r siRNA (h): sc-60299, C1r siRNA (m): sc-60300, C1r shRNA Plasmid (h): sc-60299-SH, C1r shRNA Plasmid (m): sc-60300-SH, C1r shRNA (h) Lentiviral Particles: sc-60299-V and C1r shRNA (m) Lentiviral Particles: sc-60300-V.

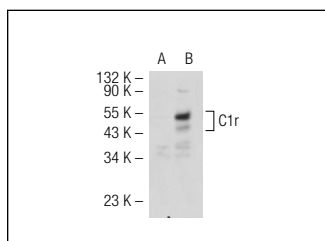
Molecular Weight of C1r: 80 kDa.

Positive Controls: C1r (h): 293T Lysate: sc-113879.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



C1r (N-18): sc-46817. Western blot analysis of C1r expression in non-transfected: sc-117752 (A) and human C1r transfected: sc-113879 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Luo, C., et al. 2012. Expression of complement components and regulators by different subtypes of bone marrow-derived macrophages. *Inflammation* 35: 1448-1461.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **C1r (F-7): sc-514105** or **C1r (F-1): sc-271642**, our highly recommended monoclonal alternatives to C1r (N-18).