BACKGROUND
Complement C3 precursor contains complement C3 β chain, complement C3 α chain, C3a anaphylatoxin, complement C3b α chain, complement C3c fragment, complement C3dg fragment, complement C3g fragment, complement C3d fragment and complement C3f fragment. C3a, C4a and C5a are potent anaphylatoxins that are released during complement activation, a system of ligand-surface protein interactions specific to cells of hematopoietic lineage that aids in the elimination of pathogens. C3a and C5a secretion correlates with pathophysiological phenotypes such as asthma and bacterial meningitis. Binding of these proteins to their respective G protein-coupled receptors (C3aR, C5aR), which are present on the surface of myeloid leukocytes, induces proinflammatory events such as cellular degranulation, smooth muscle contraction, arachidonic acid metabolism, cytokine release, leukocyte activation and cellular chemotaxis. C3aR is expressed in brain and activated B lymphocytes, whereas C5aR is prevalent on the surface of hepatocyte, lung, smooth muscle and endothelial cells. Upon activation, C3aR and C5aR are susceptible to rapid GRK-mediated phosphorylation and Clathrin-coated vesicle targeting. C5aR utilizes the Ras-Raf-ERK1/2 cascade and couples to Gz/Gi proteins.

CHROMOSOMAL LOCATION
Genetic locus: C3 (mouse) mapping to 17 D.

SOURCE
C3 (11H9) is a rat monoclonal antibody raised against cell-bound C3 of mouse origin.

PRODUCT
Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

C3 (11H9) is available conjugated to either phycoerythrin (sc-58926 PE) or fluorescein (sc-58926 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

APPLICATIONS
C3 (11H9) is recommended for detection of C3 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 flow cytometry (1 µg per 1 x 10^6 cells); may cross-react with C3b and iC3b.

Suitable for use as control antibody for C3 siRNA (m): sc-37069, C3 shRNA Plasmid (m): sc-37069-SH and C3 shRNA (m) Lentiviral Particles: sc-37069-V.

Molecular Weight of C3: 180 kDa.

Positive Controls: mouse uterus extract: sc-364254.

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

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

SELECT PRODUCT CITATIONS

PROTOCOLS
See our website at www.scbt.com for detailed protocols and support products.

CONJUGATES
See C3 (B-9): sc-28294 for C3 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.