Monoclonal antibody M81 reacts with an epitope on human C protein activated C1s, a subcomponent of the first component of C (C1). Activated C1s is a glycosylated single-polypeptide zymogen, MW 85 kD. Activation of the proenzyme C1s occurs through cleavage by the active form of C1r. The activated protease, activated C1s, consists of a disulfide-linked H chain and a L chain. Activated C1s is a serine protease and its catalytic site is located in the L chain. Activation of the classical C pathway is triggered by activated C1s which cleaves C4 and C2 to form the C3 convertase, C4bC2a. The epitope recognised by the antibody M81 is domain IV and/or V of the gamma-domain of activated C1s. Monoclonal antibody M81 blocks C4 activation and C4 binding to activated C1s. The antibody reacts around the binding site of C1s and reacts with both active and inactive C1s.

Clone: M81
Species: Mouse IgG1
Formulation: 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS containing 0.1% bovine serum albumin.
Application: The monoclonal antibody M81 can be used for immuno assays, Western blotting and immuno precipitation. Furthermore the monoclonal antibody M81 is useful for flow cytometry and immunohistology on frozen and paraffin sections. Monoclonal antibody M81 to C1s is capable of inhibiting C4 binding and activation.
Use: For immunohistology, flow cytometry and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10. For inhibition of C4 activation by C1s dilutions have to be made according to the amounts C1s to be inactivated.

Storage and stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.
1. Matsumoto, M et al; Probing the C4-binding site on C1s with monoclonal antibodies, evidence for a C4/C4b-binding site on the gamma-domain. J Immunol 1989, 8: 2743

2. Nakagawa, K et al; Complement C1s activation in degenerating articular cartilage of rheumatoid arthritis patients: immunohistochemical studies with an active form specific antibody. Ann Rheum Dis 1999, 58: 175

Laboratory Reagent For Research Use Only