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Product datasheet for AM26376PU-N

C1QA Mouse Monoclonal Antibody [Clone ID: JL-1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	JL-1
Applications:	ELISA, FN, IF, IHC, WB
Recommended Dilution:	**Immunohistochemistry on frozen sections** (1): Stains tissue sections which were fixed in acetone. As positive control a polyclonal anti-C1q antibody was used and as negative control an isotype matched monoclonal antibody (Ref.1). The typical starting working dilution is 1:50. **Functional assays** (1): Antibody JL-1 was administered to mice resulting in depletion of circulating C1q, glomerular deposition of C1q and induction of anti-C1q autoantibodies in susceptible mice. As a negative control an isotype matched monoclonal antibody was used (Ref.1). **Immunoassays** (1,2). **Immunoflourescence** (1). **Western blot** (3): The typical starting working dilution is 1:50. **Positive control**: Spleen and kidney tissue of wild-type mice (Ref.1). **Negative control**: Spleen and kidney tissue of C1q -/- mice (Ref.1).
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	C1q-/- C57BL/6 mice with Purified Mouse C1q.
Specificity:	The monoclonal antibody JL-1 recognizes the collagen-like region (CLR) of Mouse C1q. The monoclonal antibody JL-1 is reactive with the collagen-like region (CLR) only, which is the same region to which autoantibodies in mice and humans are binding. Anti-C1q autoantibodies deposit in glomeruli together with C1q but induce overt renal disease only in the context of glomerular immune complex disease. This provides an explanation why anti-C1q antibodies are especially pathogenic in patients with SLE.
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin

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Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	complement component 1, q subcomponent, A chain
Database Link:	Entrez Gene 712 Human P02745
Background:	C1q is a 459 kDa molecule consisting of three individual polypeptide chains. C1q forms together with C1r and C1s the C1 macromolecule, the first component of the classical complement pathway. Interaction of immune complexes with C1q induces a conformational change within the C1 complex, which results in activation of the classical pathway. C1q functions as recognition unit by binding to the heavy chain of IgG or IgM (Fc gamma and Fc micro) provided that the immunoglobulins are bound to their antigen. Furthermore, C1q can also recognize molecular patterns associated with pathogens and it can bind to apoptotic blebs, where it activates the classical complement pathway and mediates phagocytosis. As such, C1q promotes the clearance of apoptotic cells and subsequent exposure of auto antigens, thereby preventing stimulation of the immune system. C1q is predominantly produced by macrophages but also by follicular dendritic cells, interdigitating cells and cells of the monocyte-macrophage lineage. C1q deficiency has a profound effect on host defence and clearance of immune complexes. Absence of C1q may cause autoimmunity by impairment of the clearance of apoptotic cells. Inherited C1q deficiency is also associated with the development of systemic lupus erythematosus (SLE).
Synonyms:	Complement C1q, Complement 1q