

Product datasheet for **AM26328PU-N**

C1q A subunit Rat Monoclonal Antibody [Clone ID: 7H8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	7H8
Applications:	ELISA, FN, IHC, IP
Recommended Dilution:	Immunohistochemistry on frozen sections (1,4): 4% PFA fixed and sucrose infiltrated frozen tissue. 18h 4C, 0.133 ug/ml 7H8 IA: To detect bound C11, 1/100 diluted: The typical starting working dilution is 1:50. Functional assays (3). Immunoassays (5). Immunofluorescence (2,3). Positive control: Macrophages, follicular dendritic cells.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	The monoclonal antibody 7H8 recognizes mouse Clq.
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	complement component 1, q subcomponent, alpha polypeptide
Database Link:	Entrez Gene 12259 Mouse P98086



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Background:

Clq, a member of the 'defense collagen' family, is the first subcomponent of the C1 complex of the classical pathway of complement activation. Several functions have been assigned to the pattern recognition molecule Clq, which include antibody-dependent and independent immune functions like triggering of rapid enhanced phagocytosis resulting in efficient containment of pathogens or clearance of cellular debris, apoptotic cells and immune complexes, and is considered to be mediated by Clq receptors present on the effector cell surface. There remains some uncertainty about the identities of the receptors that mediate Clq functions. Some of the previously described Clq receptor molecules, such as gClqR and cClqR, now appear to have less of a role in Clq functions than in functions unrelated to Clq. Experiments with gene targeted homozygous Clq-deficient mice have suggested a role for Clq in modulation of the humoral immune response, and also in protection against development of autoimmunity. The first component of complement C1 is a complex of three glycoproteins - Clq, Clr, and C1s. C1s and Clr interact to form a Ca²⁺-dependent tetrameric proenzyme complex, C1r-C1s₂, which makes contacts with the Clq collagen domain. Binding of Clq to immune complexes (IgG or IgM) via the gClq domain, is considered to induce a conformational change in the collagen region of Clq, which leads to the autoactivation of Clr which, in turn, activates C1s. The activated C1 complex then cleaves components C4 and C2 in the classical complement cascade.

Synonyms:

Complement C1q, Complement 1q