Datasheet for ABIN2191787

anti-C1q antibody

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Overview

Quantity:	100 µg
Target:	C1q
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This C1q antibody is un-conjugated
Application:	Flow Cytometry (FACS), Immunoassay (IA)

Product Details

Clone:	7H8
Isotype:	IgG1
Cross-Reactivity (Details):	Cross reactivity: : Yes
Sterility:	0.2 µm filtered

Target Details

Target:	C1q
Alternative Name:	c1q (C1q Products)
Background:	The monoclonal antibody 7H8 recognizes mouse Clq. Clq, a member of the 'defense collagen' family, is the first subcomponent of the Cl 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

Target Details

	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 Cl is a complex of three glycoproteins - Clq, Clr, and Cls. Cls and Clr interact to form a Cazf-dependent tetrameric proenzyme complex, C lr,-C 1 s2, 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 Cls. The activated Cl complex then cleaves components C4 and C2 in the classical complement cascade.

Application Details

Application Notes:	For immunohistochemistry, 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 1:50. For functional studies, in vitro dilutions have to be optimized in user's experimental setting. Positive Macrophages, follicular dendritic cells control 1
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin and 0.02 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

Publications

Product cited in:

Ankeny, Guan, Popovich: "B cells produce pathogenic antibodies and impair recovery after spinal cord injury in mice." in: **The Journal of clinical investigation**, Vol. 119, Issue 10, pp. 2990-9, (2009) (PubMed).

Abbitt, Cotter, Ridger, Crossman, Hellewell, Norman: "Antibody ligation of murine Ly-6G induces neutropenia, blood flow cessation, and death via complement-dependent and independent mechanisms." in: **Journal of leukocyte biology**, Vol. 85, Issue 1, pp. 55-63, (2008) (PubMed).

Kang, Do, Lee, Park, Cheong, Lynch, Loeffler, Steinman, Park: "A dominant complement fixation pathway for pneumococcal polysaccharides initiated by SIGN-R1 interacting with C1q." in: **Cell**, Vol. 125, Issue 1, pp. 47-58, (2006) (PubMed).

Suresh, Singh, Ferguson, Agrawal: "Role of the property of C-reactive protein to activate the classical pathway of complement in protecting mice from pneumococcal infection." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 176, Issue 7, pp. 4369-74, (2006) (PubMed).

Zachrau, Finke, Kropf, Gosink, Kirchner, Goerg: "Antigen localization within the splenic marginal zone restores humoral immune response and IgG class switch in complement C4-deficient mice." in: **International immunology**, Vol. 16, Issue 12, pp. 1685-90, (2004) (PubMed).