

Complement

Monoclonal Antibodies: Murine Anti-Human Clusterin Protein

For Research Use Only. Not for use in Diagnostic Procedures.

Background

Clusterin, also called complement lysis inhibitor, SP-40, 40, Apolipoprotein J (Apo J), is a 449 amino acid protein with a molecular weight of 75-80 kD. Clusterin is a heterodimer consisting of alpha and beta chains of approximately equal size (35-40 kD); the chains being linked by a unique five-disulfide bond motif.

Serum concentration of clusterin is 50-100 µg/mL and is present in most organs, with the highest level of mRNA expression in brain, adrenal medulla, ovary, testis and liver.

Within the complement system, clusterin modulates the function of the Terminal Complement cascade to prevent lysis by the Membrane Attack Complex (C5b-9). Clusterin is found in non-lytic C5b-9 complexes, which also contain Vitronectin. Clusterin binds to C5b-7, C5b-8 or C5b-9 during assembly of the amphiphilic complex.

Specificity

The specificity of the monoclonal antibody was established via ELISA. This antibody was shown to bind purified clusterin protein. The antibody reacts with native, heterodimeric clusterin, but does not react with either of the separated clusterin alpha or beta subunits.

Applications

EIA ¹	RIA	IHC ²⁻³	WB ⁴	FACS ⁵
>1:10,000	N/T	>1:1000	>1:1000	>1:1000

N/T = Not tested.

Specifications

Catalog Number:	A241
Concentration:	1.0-1.2 mg/ml
Purity:	≥ 95% by SDS PAGE
Volume/Vial:	100 µl
Storage:	
≤ 30 Days	2-8 °C
> 30 Days	≤ -20 °C
Buffer:	Borate Buffered Saline (pH 8.4 ± 0.2)
Isotype:	IgG ₁ k

Species Cross Reactivity:

None tested.

References

- 1 On file with Quidel Corporation.
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- 3 Nakamura, T. et al. Changes in conjunctival clusterin expression in severe ocular surface disease. *Invest Ophthalmol Vis Sci* 43(6):1702-1707 (2002).
- 4 Kalka, K. et. al. Up-regulation of clusterin during phthalocyanine 4 photodynamic therapy-mediated apoptosis of tumor cells and ablation of mouse skin tumors. *Cancer Res* 60(21):5984-5987 (2000).
- 5 Gnatenko, DV. et. al. Transcript profiling of human platelets during microarray and serial analysis of gene expression. *Methods Mol Biol* 496:245-272 (2009).

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