

# Complement

## Polyclonal Antibodies: Chicken Anti-Human C4b (IgY)

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

### Background<sup>1</sup>

The classical pathway of complement can be triggered by antibodies bound to a foreign particle, immune complex, cell or other material. Antibody bound particles of this type interact directly with the C1q molecule. In turn, this activates the C1r(2)C1s(2) sub-units of the C1 complex. The activated C1s cleaves C4 to C4b near the amino terminus of the gamma chain releasing C4a in the process. The short-lived C4b can then bind covalently to membranes or other surfaces via an amide or ester bond. This inefficient process is limited to the immediate vicinity of the C1 complex. Then C4b takes part in the classical convertase enzyme.

Both bound and free C4b are strictly controlled *in vivo*. The ability of C4b to participate in classical pathway activation and opsonization reactions is inhibited by a single site cleavage of the alpha chain by Factor I. This reaction requires C4 binding protein or CR1 as a cofactor. This initial cleavage inactivates C4b, resulting in iC4b. Further degradation of this molecule by Factor I produces the C4c and C4d fragments. Both of these fragments can be produced in fluid phase or on target surface.

### Applications<sup>2</sup>

EIA	RIA	WB	IHC	FACS
>1:1000	N/T	> 1:500	N/T	N/T

N/T = Not tested.

### Specifications

Catalog Number: A801  
 Concentration: 1.0-1.2 mg/ml  
 Purity: ≥ 85% by SDS PAGE  
 Volume/Vial: 100 µl  
 Storage: ≤ -20°C  
 Buffer: Phosphate Buffered Saline (pH 7.0 ± 0.2)

**Species Cross Reactivity:** Rat, dog, porcine, bovine, sheep, mouse, rhesus macaque, goat, hamster, and rabbit.

### References

1 Complement Second Edition; SKA Law and KBM Reid Eds Oxford University Press (1995) pp. 11-29.  
 2 Data on File at Quidel Corporation.

### Related Products

MicroVue™ C4d Fragment EIA Kit A008  
 Monoclonal Anti-Human C4c A211  
 Monoclonal Anti-Human C4d A213  
 Monoclonal Anti-Human C4d A251  
 (neoantigen)  
 Monoclonal Anti-Human C4d A253  
 (0.5 ml)

### Ordering and Additional Information

To learn more about this and other Quidel products visit our website [www.quidel.com](http://www.quidel.com) or contact Technical Services at 1.800.524.6318.



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