

Licensing opportunity

Anti-human/ anti-porcine complement protein monoclonal antibodies

Scientists at the Georg-August-University produced different monoclonal antibodies directed against components of the **human and porcine complement system**, especially against complement factors of the **alternative pathway** of activation, e.g. **Factor B, H, C3, C5** and **Factor D**. Monoclonal antibodies against porcine **C3a** and **C5a** are also available. The Complementfactors C3a and C5a, also known as **anaphylatoxins**, play an important role in all kinds of **inflammation**. They are produced during the pathway of the complement system. However, inflammation runs unchecked can also be lead to **tissue destruction** and **host of diseases**, such as **atheriosklerosis, rheumatoid arthritis, glomerulonephritis, hay fever** and **heart attack**. The monoclonal antibodies can be used for running an **ELISA** against porcine C3a and C5a and therefor can be used for analysing **inflammatory processes** in pigs.

Available Clones for Licensing

Clone name	Specificity	Isotype	Epitope	Applications	Functional properties	References
Anti-human:						
P21/15	Ba / Factor B	IgG2a/k		WB,E,IP	Capture Ab in Factor B ELISA (together with rab anti-Bb)	(1-3)
M20/6	Ba / Factor B	IgG1/k		WB,E,IP	Detecting Ab in Ba ELISA (together with D22/3)	(1-4)
D22/3	Ba	IgG2b/k	<i>Neo-Epitope</i> on Ba (Glu215 Arg234)	WB,F,E	Capture Ab in Ba ELISA (together with M20/6)	(2-4)
M13/12	Bb / Factor B	IgG1/k		WB,E,IP	Capture Ab in Bb ELISA (together with rab anti-Bb)	(1-3)
D10/4	Factor D	IgG2a/k		WB,E	Capture Ab in Factor D ELISA (together with I8/1)	(1-3;5)
I8/1	Factor D	IgG1/k		WB,E	Detecting Ab in Factor D ELISA (together with D10/4)	(1-3;5)
H13/11	Factor D			WB		(1-3;5)
C18/3	Factor H	IgG1/k		WB,E	Capture Ab in Factor H ELISA (together with L20/3)	(1-3)
L20/3	Factor H	IgG1/k		WB,E	Detecting Ab in Factor H ELISA (together with C18/3)	(1-3)
I3/15	'Activated C3'	IgG1/k	<i>Neo-Epitope</i> on C3b/iC3b/C3dg	WB,E	Capture Ab in ActC3 ELISA (together with rab anti-C3dg)	(1-3;6;7)
K13/16	C3a/C3a(desArg)/C3	IgG1/k		WB,E,IP, FN	Capture Ab in C3a ELISA (together with D17/1) blocks C3a biological activity	(2;3;8-16)

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D17/1	C3a/C3a(desArg)/C3	IgG1/k		WB,E	Detecting Ab in C3a ELISA (together with K13/16)	(2;3;8;10;14-16)
C17/5	C5a/C5a(desArg)	IgG1/k	<i>Neo-Epitope on C5a/C5a(desArg)</i>	WB, E,	Capture Ab in C5a ELISA (together with G25/2) blocks C5a biological activity	(2;3;8;10;14-16;19)
G25/2	C5/C5a/C5a(desArg)	IgG1/k		WB,E,IP, FN	Detecting Ab in C5a (together with C17/5) blocks C5a biological activity	(2;3;8;10;14-16;19)
Anti-porcine:						
Z22/8	C3a/C3a(desArg)	IgG2b/k	<i>Neo-Epitope on C3b/iC3b/C3dg</i>	WB,E,IP, FN	Capture Ab in C3a ELISA (together with K5/9) blocks C3a biological activity	(3;17;18)
K5/9	C3a/C3a(desArg)/C3	IgG1/k		WB,E, FN	Detecting Ab in C3a ELISA (together with Z22/8) blocks C3a biological activity	(3;17;18)
T13/9	C5a/C5a(desArg)	IgG1/k	<i>Neo-Epitope on C5a (Tyr57-Gly74)</i>	WB,E,IP, FN	Capture Ab in C5a ELISA (together with rabbit anti-C5a) blocks C5a biological activity	(3;17;18)

(N.A.: Information not available; WB: Western blotting; E: ELISA; F: flow cytometry; FN: functional studies; IP: immunoprecipitation; IH: immunohistochemistry on cryostat sections) All hybridoma clones were derived from the fusion of murine splenocytes with X63Ag8.653 myeloma cells and secrete significant amounts of antibodies when grown in 80:20–10 medium (80 parts RPMI 1640, 20 parts medium 199, supplemented with 10% heat-inactivated fetal bovine serum, penicillin (100 units/ml), 100 h g/ml streptomycin, hypoxanthine/thymidine (optional), recombinant human Interleukin-6 (20U/ml).

We are looking for companies, who are interested in **licensing** these antibodies for selling them to industrial and scientific institutions or for developing advanced **diagnostic tests** and **therapeutic solutions**.

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Reference List for anti-human complement protein mAb

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