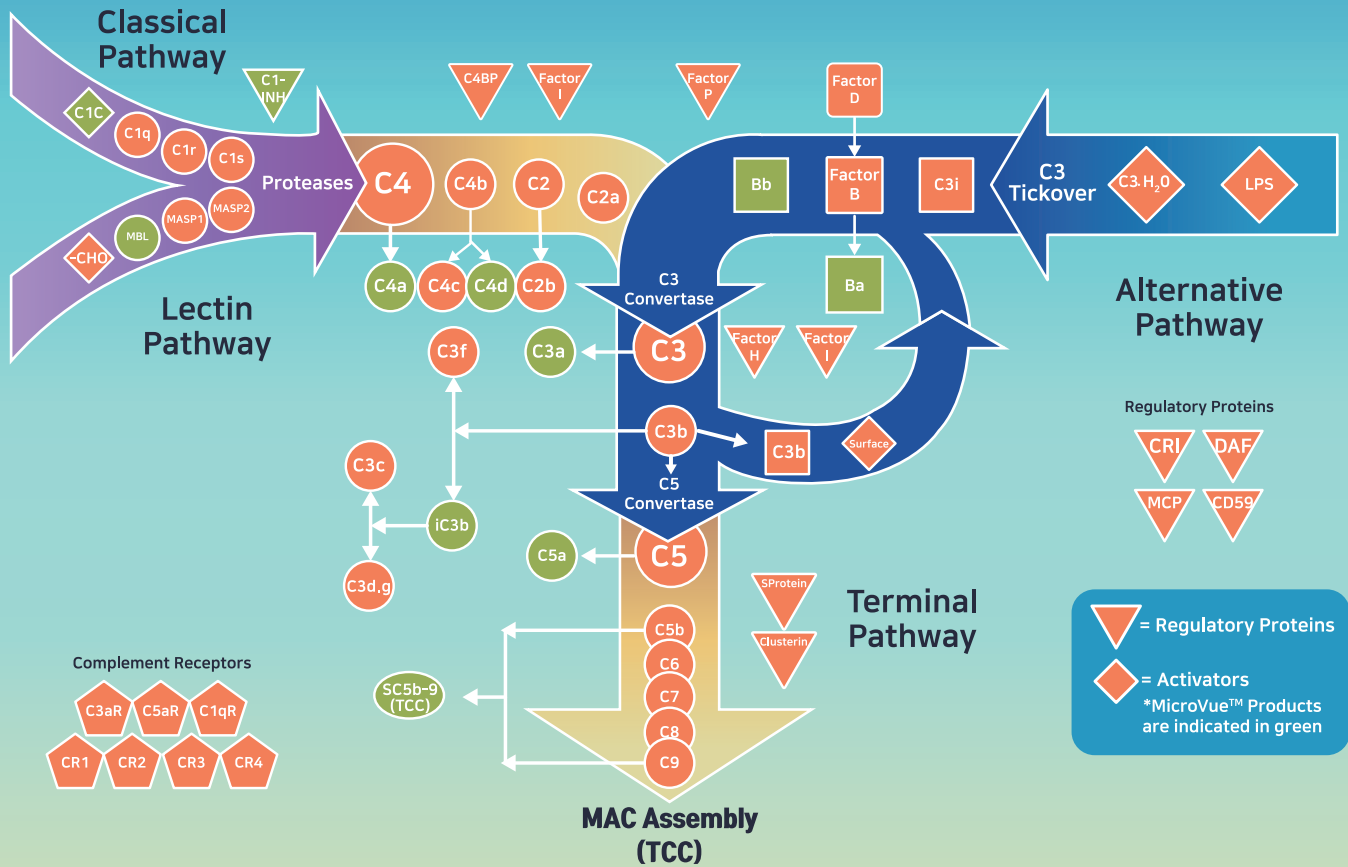


Complement Activation in Human Diseases

Complement System의 모든 것! Quidel



Disease associated with complement factors

Clinical disease states	Associated Complement factor
Systemic lupus erythematoses (SLE) and Lupus nephritis CP: C4d detection	CH50, C3, C4 ↑ C1, C4, C2 and C3, Factor B ↓
Cardiac infarction and apoplexy	Terminal pathway [SC5b-9] and anaphylatoxins, ↑ especially C5a
Vasculitis, glomerulonephritis	Consumption of C3, C4
Angioedemas, Capillary Leak Syndrome	C1-INH
Haemolytic-uraemic syndrome	Factor H
Rheumatoid arthritis	Factor H, C3d, C1q
Transfusion reactions, transplantation, allograft rejection	Classical pathway C4d
Age-related macular degeneration(AMD)	Factor H, C3, C5
Alzheimer	C3, C5, SC5b-9, Factor H, E100
Polytrauma, burns, sepsis	C5a
Acute Respiratory Distress Syndrome(ARDS), multiorgan failure	C5a
Diabetic ketoacidosis(DKA)	C3a and sC5b-9

Complement

Complement는 병원성 미생물에 대한 숙주 방어 체계의 일종으로 면역반응 유도를 자주하는 역할도 하고 있습니다. 이러한 Complement의 문제로 다양한 질병이 일어날 수 있으며 이의 해결을 위해 다양한 연구들이 진행되고 있습니다.



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LIST CHART

Complement detection Guide

Parameters for initial examination of complement activation

parameter	method	Pathway
CH50	ELISA or titration of the total haemolytic activity of the complement system	classical pathway.
APH50	ELISA or titration of the total haemolytic activity of the complement system	alternative pathway.
C3d	ELISA or rocket immune electrophoresis - detection of the C3 cleavage product C3dg/C3d.	Classical, Lectin and Alternative pathway

Analytical methods for complement diagnostics

Searched-for parameter	Complement measurement methods
Overall function	
Classical pathway	CH50:ELISA, haemolytic titration
Alternative pathway	APH50: ELISA, haemolytic titration
Lectin pathway	haemolytic titration, ELISA
Individual factors	
Protein determination: C1q, C2 - C9	nephelometry, RID, ELISA
Functional determination: C1- C9	haemolytic titration (depleted sera)
Activation products - all pathways	
C3a, iC3b, C5a, SC5b-9	ELISA
C3d	ELISA, rocket electrophoresis
Activation products - classical pathway	
C1rs C1- Inhibitor	ELISA
C4a, C4d	ELISA
Activation products - alternative pathway	
C3b (Bb) P	ELISA
Ba, Bb	ELISA
Activation terminal sequence	
C5a, SC5b-9	ELISA
Regulators	
C1 inhibitor function	enzyme inhibition test
Factor H and Factor I protein	ELISA, rocket electrophoresis
Factor H and Factor I function	haemolytic test
Carboxypeptidase N	enzyme test with chromogenic substrate
DAF, C8bp, CD59 protein	cytofluorometry
DAF, C8bp, CD59 function	acid hemolysis test
C3-Nephritis factor	immunifixation, haemolytic test
Factor P - Properdin	ELISA
Factor B - C3 Proactivator	ELISA, RID
Circulating immune complexes	
Circulating immune complexes - C1q fragments	CIC-C1q ELISA
Circulating immune complexes - C3 fragments	CIC-RCR ELISA

Quidel Products

EIA KITS FOR COMPLEMENT ACTIVATION ANALYSIS

serum, plasma, and other biological fluids

Catalog #	Qty	Description
A006	1 kit	Micro Vue iC3b EIA* (For C3 activation)
A009(CE)	1 kit	MicroVue C4d Fragment EIA* (For C4 and classical pathway)
A020	1 kit	MicroVue SC5b-9 Plus EIA* (For MAC assembly, TCC, C5 and terminal pathway activation)
A021	1 kit	MicroVue C5a EIA*
A031	1 kit	MicroVue C3a Plus EIA* (For C3 activation)
A033	1 kit	MicroVue Ba Fragment EIA*
A035	1 kit	MicroVue C4a Fragment EIA*
A039	1 kit	MicroVue Factor H EIA*
20261	1 kit	MicroVue Pan-Specific C3 Reagent Kit*
BP029	1 kit	MBL Oligomer EIA*
TE1038	1 kit	C3a Mouse*

DIAGNOSTIC EIA KITS

For In Vitro Diagnostic Use

Catalog #	Qty	Description
A001(CE)	1 kit	MicroVue CIC-C1q EIA (Detection of C1q-binding circulating immune complexes)
A002(CE)	1 kit	MicroVue CIC-Raji Cell Replacement EIA (Detection of C3d-bound circulating immune complexes)
A013(CE)	1 set	MicroVue CIC-C1q Controls
A018(CE)	1 kit	MicroVue CH50 Eq EIA(Classical complement pathway activity)
A027(CE)	1 kit	MicroVue Bb Plus Fragment EIA
A037(CE)	1 kit	MicroVue C1-Inhibitor Plus EIA (Functional C1-Inhibitor levels)

HUMAN COMPLEMENT REAGENTS: PROTEINS

For Research Use Only

The concentration of each complement protein, except for Factor D and C3a, is approximately 1.0 mg/mL.

Catalog #	Vol./Vial	Description
A400	1.0 mL	C1qt
A401	250 µL	C3
A402	250 µL	C4
A403	250 µL	C5
A404	250 µL	C6
A405	250 µL	C7
A406	250 µL	C8
A407	250 µL	C9
A408	250 µL	Factor B
A409	250 µL	Factor Dtt
A410	250 µL	Factor H
A411	250 µL	Factor I
A412	250 µL	Factor P
A413	50 µL	C3b
A414	100 µL	C3a
A415	100 µL	SC5b-9 Complex
A416	250 µL	Bb
A417	250 µL	C3c
A418	100 µL	C3d
A419	500 µL	C4a
A420	500 µL	C5a
A422	100 µL	Factor Ba
A423	250 µL	iC3b
A424	250 µL	C1r Enzyme
A425	250 µL	C1s Enzyme
A426	1.0 mL	C1 Esterase Inhibitor
A427	100 µL	C2
A428	250 µL	C4b