Reporting Title: aHUS Complement Panel, S and P
Performing Location: Rochester

Ordering Guidance:
This test should be performed prior to treatment initiation and in the absence of therapy with complement inhibitors, such as eculizumab or ravulizumab. Complement inhibitors will affect performance of these assays.

For evaluating patients with possible thrombotic microangiopathies (TMA), the recommended first-tier test is ADM13 / ADAMTS13 Activity and Inhibitor Profile, Plasma. This test should be a second-tier test for TMA.

For patients who have received eculizumab or need to monitor response to eculizumab therapy, the recommended test is ECUMP / Eculizumab Monitoring Panel, Serum. Soluble membrane attack complex (sMAC) should not be used as a standalone assay to monitor eculizumab efficiency.

Specimen Requirements:
Both plasma and serum are required for this test.

Patient Preparation:
1. Fasting preferred.
2. Samples should not be collected earlier than 48 hours following plasma exchange.

Supplies: Sarstedt Aliquot Tube 5 mL (T914)

Specimen Type: Plasma
Collection Container/Tube: Light-blue top (3.2% sodium citrate)
Submission Container/Tube: 3 plastic vials
Specimen Volume: 1.5 mL in 3 plastic vials, each containing 0.5 mL
Collection Instructions:
1. Immediately after specimen collection, place the tube on wet ice.
2. Centrifuge; 1500 x g for 10 minutes at 4 degrees C and aliquot plasma into plastic vial.
3. Freeze specimen within 30 minutes.

Specimen Type: Serum
Collection Container/Tube: Red top (serum gel/SST are not acceptable)
Submission Container/Tube: 3 plastic vials
Specimen Volume: 1.5 mL in 3 plastic vials, each containing 0.5 mL
Collection Instructions:
1. Immediately after specimen collection, place the tube on wet ice.
2. Centrifuge at 4 degrees C and aliquot serum into 5 mL plastic vial.
3. Freeze specimen within 30 minutes.

Specimen Minimum Volume:
Serum, Plasma: 1 mL each

Forms:
If not ordering electronically, complete, print, and send 1 of the following forms with the specimen:
-Renal Diagnostics Test Request (T830)
-Coagulation Test Request (T753)

Specimen Type	Temperature	Time	Special Container
Plasma Na Cit	Frozen	14 days	
Serum Red	Frozen	14 days	

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
INTGA	ECPRO	Is Eculizumab or Ravulizumab taken?: • Yes • No	Answer List	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
39844	AHUS Interpretation	Alphanumeric		69048-7
ECPRO	Is Eculizumab or Ravulizumab taken?	Alphanumeric		86955-2
COM3	Complement, Total, S **Also used by tests: COM3**	Numeric	U/mL	4532-8
38316	Alternative Complement Path Func, S **Also used by tests: AH503**	Numeric	%of norm	74520-8
C3HUS	Complement C3, S **Also used by tests: C3HUS**	Numeric	mg/dL	4485-9
C4HUS	Complement C4, S **Also used by tests: C4HUS**	Numeric	mg/dL	4498-2
FBCA	Factor B Complement Antigen, S	Numeric	mg/dL	2269-9
FHCA	Factor H Complement Antigen, S	Numeric	mg/dL	4519-5
62584	C4d Complement, P	Numeric	mcg/mL	39565-7
62585	CBb Complement, P	Numeric	mcg/mL	4517-9

Result ID	Reporting Name	Type	Unit	LOINC®
62586	SC5b-9 Complement, P **Also used by tests: SC5B9**	Numeric	ng/mL	93244-2

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:
No

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
INTGA	AHUS Interpretation			Yes	No
COM3	Complement, Total, S			Yes	Yes (order COM)
AH503	Alternative Complement Path Func, S			Yes	Yes (order AH50)
C3HUS	Complement C3, S			Yes	Yes (order C3)
C4HUS	Complement C4, S			Yes	Yes (order C4)
FBCA	Factor B Complement Antigen, S			Yes	No
FHCA	Factor H Complement Antigen, S			Yes	No
C4D	C4d Complement, P			Yes	No
CBB	CBb Complement, P			Yes	No
SC5B9	SC5b-9 Complement, P			Yes	Yes (C5B9)

CPT Code Information:

86160 x 7
86161
86162

Reflex Tests:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
C1Q	Complement C1q, S			No	Yes
C1QFX	C1Q Complement, Functional, S			No	Yes
C2FXN	C2 Complement, Functional, S, NR			No	Yes
C3FX	C3 Complement, Functional, S			No	Yes
C4FX	C4 Complement, Functional, S			No	Yes
C5FX	C5 Complement, Functional, S			No	Yes
C6FX	C6 Complement, Functional, S			No	Yes
C7FX	C7 Complement, Functional, S			No	Yes
C8FX	C8 Complement, Functional, S			No	Yes
C9FX	C9 Complement, Functional, S			No	Yes
C5AG2	C5 Complement, Antigen, S			No	Yes (order C5AG)

Result Codes for Reflex Tests:

Test ID	Result ID	Reporting Name	Type	Unit	LOINC®
C1Q	C1Q	Complement C1q, S	Numeric	mg/dL	4478-4
C1QFX	C1QFX	C1Q Complement, Functional, S	Numeric	U/mL	87722-5
C2FXN	C2FX	C2 Complement,Functional,S	Numeric	U/mL	93977-7
C2FXN	INT53	Interpretation	Alphanumeric		69048-7
C3FX	C3FX	C3 Complement, Functional, S	Numeric	U/mL	87723-3
C4FX	C4FX	C4 Complement, Functional, S	Numeric	U/mL	93978-5
C5FX	C5FX	C5 Complement, Functional, S	Numeric	U/mL	60472-8
C6FX	C6FX	C6 Complement, Functional, S	Numeric	U/mL	60459-5
C7FX	C7FX	C7 Complement, Functional, S	Numeric	U/mL	87724-1
C8FX	C8FX	C8 Complement, Functional, S	Numeric	U/mL	50997-6
C9FX	C9FX	C9 Complement, Functional, S	Numeric	U/mL	87727-4
C5AG2	C5AG2	C5 Complement, Antigen, S	Numeric	mg/dL	4505-4

Reference Values:

FACTOR B COMPLEMENT ANTIGEN
15.2-42.3 mg/dL

SC5b-9 COMPLEMENT
< or =250 ng/mL

FACTOR H COMPLEMENT ANTIGEN
18.5 to 40.8 mg/dL

C4d COMPLEMENT ACTIVATION FRAGMENT
< or =9.8 mcg/mL

CBb COMPLEMENT ACTIVATION FRAGMENT
< or =1.6 mcg/mL

COMPLEMENT C4
14-40 mg/dL

COMPLEMENT C3
75-175 mg/dL

ALTERNATIVE COMPLEMENT, PATHWAY (AH50) FUNCTIONAL
> or =46% normal

COMPLEMENT, TOTAL
30-75 U/mL