Overview

Useful For

Investigating new onset dementia and cognitive impairment *plus* 1 or more of the following accompaniments using cerebrospinal fluid specimens:

-Rapid onset and progression

-Fluctuating course

-Psychiatric accompaniments (psychosis, hallucinations)

-Movement disorder (myoclonus, tremor, dyskinesias)

-Headache

-Autoimmune stigmata (personal history or family history or signs of diabetes mellitus,Â thyroid disorder, vitiligo, poliosis [premature graying], myasthenia gravis, rheumatoid arthritis, systemic lupus erythematosus)

-Smoking history (20+ pack years) or other cancer risk factors

-History of cancer

-Inflammatory cerebrospinal fluid

-Neuroimaging findings atypical for degenerative etiology

Profile Information

Test ID	Reporting Name	Available Separately	Always Performed
ADMCI	Dementia, Interpretation, CSF	No	Yes
AMPCC	AMPA-R Ab CBA, CSF	No	Yes
AMPHC	Amphiphysin Ab, CSF	No	Yes
AGN1C	Anti-Glial Nuclear Ab, Type 1	No	Yes
ANN1C	Anti-Neuronal Nuclear Ab, Type 1	No	Yes
ANN2C	Anti-Neuronal Nuclear Ab, Type 2	No	Yes
ANN3C	Anti-Neuronal Nuclear Ab, Type 3	No	Yes
CS2CC	CASPR2-IgG CBA, CSF	No	Yes
CRMC	CRMP-5-IgG, CSF	No	Yes
DPPIC	DPPX Ab IFA, CSF	No	Yes
GABCC	GABA-B-R Ab CBA, CSF	No	Yes

Test ID	Reporting Name	Available Separately	Always Performed
GD65C	GAD65 Ab Assay, CSF	Yes	Yes
GFAIC	GFAP IFA, CSF	No	Yes
IG5IC	IgLON5 IFA, CSF	No	Yes
LG1CC	LGI1-IgG CBA, CSF	No	Yes
GL1IC	mGluR1 Ab IFA, CSF	No	Yes
NIFIC	NIF IFA, CSF	No	Yes
NMDCC	NMDA-R Ab CBA, CSF	No	Yes
PCTRC	Purkinje Cell Cytoplasmc Ab Type Tr	No	Yes
PCA2C	Purkinje Cell Cytoplasmic Ab Type 2	No	Yes

Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
AGNBC	AGNA-1 Immunoblot, CSF	No	No
AINCC	Alpha Internexin CBA, CSF	No	No
AMPIC	AMPA-R Ab IF Titer Assay, CSF	No	No
AMIBC	Amphiphysin Immunoblot, CSF	No	No
AN1BC	ANNA-1 Immunoblot, CSF	No	No
AN2BC	ANNA-2 Immunoblot, CSF	No	No
CRMWC	CRMP-5-IgG Western Blot, CSF	Yes	No
DPPCC	DPPX Ab CBA, CSF	No	No
DPPTC	DPPX Ab IFA Titer, CSF	No	No
GABIC	GABA-B-R Ab IF Titer Assay, CSF	No	No
GFACC	GFAP CBA, CSF	No	No
GFATC	GFAP IFA Titer, CSF	No	No
IG5CC	IgLON5 CBA, CSF	No	No
IG5TC	IgLON5 IFA Titer, CSF	No	No
GL1CC	mGluR1 Ab CBA, CSF	No	No
GL1TC	mGluR1 Ab IFA Titer, CSF	No	No
NFHCC	NIF Heavy Chain CBA, CSF	No	No
NIFTC	NIF IFA Titer, CSF	No	No
NFLCC	NIF Light Chain CBA, CSF	No	No

Test ID	Reporting Name	Available Separately	Always Performed
NMDIC	NMDA-R Ab IF Titer Assay, CSF	No	No
PC1BC	PCA-1 Immunoblot, CSF	No	No
PCTBC	PCA-Tr Immunoblot, CSF	No	No
PCA1C	Purkinje Cell Cytoplasmic Ab Type 1	No	No

Testing Algorithm

If indirect immunofluorescence assay (IFA) pattern suggests AGNA-1 antibody, then AGNA-1 immunoblot is performed at an additional charge.

If IFA pattern suggests ANNA-1 antibody, then ANNA-1 immunoblot is performed at an additional charge.

If IFA pattern suggests ANNA-2 antibody, then ANNA-2 immunoblot is performed at an additional charge.

If IFA pattern suggest amphiphysin antibody, then amphiphysin immunoblot is performed at an additional charge,

If IFA pattern suggest PCA-1 antibody, then PCA-1 immunoblot is performed at an additional charge,

If IFA pattern suggest PCA-Tr antibody, then PCA-Tr immunoblot is performed at an additional charge,

If client requests or if IFA patterns suggest CRMP-5-IgG, then CRMP-5-IgG Western blot is performed at an additional charge.

If IFA pattern suggests AMPA-receptor antibody, and AMPA-receptor antibody cell-binding assay (CBA) is positive, then AMPA-receptor antibody IFA titer assay is performed at an additional charge.

If IFA pattern suggests GABA-B-receptor antibody, and GABA-B-receptor antibody CBA is positive, then GABA-B-receptor antibody IFA titer assay is performed at an additional charge.

If IFA pattern suggests GFAP antibody, then GFAP IFA titer and GFAP CBA are performed at an additional charge.

If IFA pattern suggests NMDA-receptor antibody, and NMDA-receptor antibody CBA is positive, then NMDA-receptor antibody IFA titer assay is performed at an additional charge.

If IFA pattern suggests DPPX antibody, then DPPX antibody CBA and DPPX antibody IFA titer are performed at an additional charge.

If IFA pattern suggests mGluR1 antibody, then mGluR1 antibody CBA and mGluR1 antibody IFA titer are performed at an additional charge.

If IFA pattern suggests IgLON5 antibody, then IgLON5 antibody CBA and IgLON5 IFA titer are performed at an additional charge.

If IFA pattern suggests NIF antibody, then alpha internexin CBA, NIF heavy chain CBA, NIF light chain CBA, and NIF IFA titer are performed at an additional charge.

See Dementia Autoimmune Evaluation Algorithm-Spinal Fluid in Special Instructions.

Special Instructions

- Dementia Autoimmune Evaluation Algorithm-Spinal Fluid

Method Name

AGN1C, AMPHC, AMPIC, ANN1C, ANN2C, ANN3C, CRMC, DPPIC, DPPTC, GABIC, GFAIC, GFATC, GL1IC, GL1TC, IG5IC, IG5TC, NIFIC, NIFTC, NMDIC, PCA1C, PCA2C, PCTRC: Indirect Immunofluorescence Assay (IFA)

AINCC, AMPCC, CS2CC, DPPCC, GABCC, GFACC, GL1CC, IG5CC, LG1CC, NFHCC, NFLCC, NMDCC: Cell-Binding Assay (CBA)

AGNBC, AMIBC, AN1BC, AN2BC, PC1BC, PCTBC: Immunoblot

CRMWC: Western Blot (WB)

GD65C: Radioimmunoassay (RIA)

NY State Available

Yes

Specimen

Specimen Type

CSF

Necessary Information

Provide the following information:

-Relevant clinical information

-Ordering provider name, phone number, mailing address, and e-mail address

Specimen Required

Collection Container/Tube: Sterile vial

Specimen Volume: 4 mL

Forms

If not ordering electronically, complete, print, and send a Neurology Specialty Testing Client Test Request (T732) with the specimen.

Specimen Minimum Volume

2 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
CSF	Refrigerated (preferred)	28 days	
	Frozen	28 days	
	Ambient	72 hours	

Clinical and Interpretive

Clinical Information

The rapid identification of subacute cognitive decline as autoimmune dementia facilitates optimum treatment with immunotherapy and an expedited search for a limited stage of cancer in some patients. Traditionally, neurologists have been reluctant to consider a diagnosis of an autoimmune cognitive disorder in the absence of delirium. However, some recent case series and clinical-serologic observations have suggested a growing appreciation for autoimmune neurologic disorders presenting with features of a rapidly progressive dementia rather than delirium. These disorders can affect all age groups.

Unfortunately, these potentially reversible conditions may be misdiagnosed as being progressive neurodegenerative (currently irreversible) disorders with devastating consequences for the patient. In the evaluation of a patient with cognitive decline, clinicians should consider the possibility of an autoimmune etiology on their list of differential diagnoses. The importance of not overlooking this possibility rests in the experience that these patients have a potentially immunotherapy-responsive, reversible disorder. The development and widespread availability of neural antibody marker testing has changed this perspective so that other presenting symptoms such as personality change, executive dysfunction, and psychiatric symptoms are increasingly recognized in an autoimmune context.

Clues that are helpful in identifying patients with an autoimmune dementia can be summarized within a triad of: 1) suspicious clinical features (a subacute onset of symptoms, a rapidly progressive course, and fluctuating symptoms) and radiological findings, 2) the detection of cerebrospinal fluid (CSF) or serological biomarkers of autoimmunity and 3) a response to immunotherapy.

Detection of neural autoantibodies in serum or CSF serves 2 purposes; to inform the physician of a likely autoimmune etiology and to raise suspicion for a paraneoplastic cause. The neurological associations of neural autoantibodies tend to be diverse and multifocal, although certain syndromic associations may apply. For example, Lgi1 antibody was initially considered to be specific for autoimmune limbic encephalitis, but over time other presentations have been reported, including rapidly progressive course of cognitive decline mimicking neurodegenerative dementia.

Since neurological presentations are often multifocal and diverse, comprehensive antibody testing is usually more informative than testing for 1 or 2 selected antibodies. Some of the antibodies are highly predictive of an unsuspected underlying cancer. For example; small-cell lung carcinoma (antineuronal nuclear antibody-type 1: ANNA-1; collapsin response-mediator protein-5 neuronal: CRMP-5-IgG), ovarian teratoma (N-methyl-D-aspartate receptor: NMDA-R), and thymoma (CRMP-5 IgG).

Also, a profile of seropositivity for multiple autoantibodies may be informative for cancer type. For example, in a patient presenting with a rapidly progressive dementia who has CRMP- 5-IgG, and subsequent reflex reveals muscle acetylcholine receptor (AChR) binding antibody, the findings should raise a high suspicion for thymoma. If an associated tumor is found, its resection or ablation optimizes the neurological outcome.

Antibody testing on CSF is additionally helpful particularly when serum testing is negative, though in some circumstances testing both serum and CSF simultaneously is pertinent. Testing of CSF is recommended for some antibodies in particular (such as NMDA-R antibody and GFAP-IgG) because CSF testing is both more sensitive and specific.

Reference Values

Test ID	Reporting name	Methodology	Reference value
AMPCC	AMPA-R Ab CBA, CSF	Cell-binding assay (CBA)	Negative
AMPHC	Amphiphysin Ab, CSF	Indirect immunofluorescence assay (IFA)	<1:2
AGN1C	Anti-Glial Nuclear Ab, Type 1	IFA	<1:2
ANN1C	Anti-Neuronal Nuclear Ab, Type 1	IFA	<1:2
ANN2C	Anti-Neuronal Nuclear Ab, Type 2	IFA	<1:2
ANN3C	Anti-Neuronal Nuclear Ab, Type 3	IFA	<1:2
CS2CC	CASPR2-IgG CBA, CSF	CBA	Negative
CRMC	CRMP-5-IgG, CSF	IFA	<1:2
DPPIC	DPPX Ab IFA, CSF	IFA	Negative
GABCC	GABA-B-R Ab CBA, CSF	CBA	Negative
GD65C	GAD65 Ab Assay, CSF	Radioimmunoassay (RIA)	< or =0.02 nmol/L Reference values apply to all ages.
GFAIC	GFAP IFA, CSF	IFA	Negative
IG5IC	IgLON5 IFA, CSF	IFA	Negative
LG1CC	LGI1-IgG CBA, CSF	CBA	Negative
GL1IC	mGluR1 Ab IFA, CSF	IFA	Negative
NIFIC	NIF IFA, CSF	IFA	Negative
NMDCC	NMDA-R Ab CBA, CSF	CBA	Negative
PCTRC	Purkinje Cell Cytoplasmc Ab Type Tr	IFA	<1:2
PCA2C	Purkinje Cell Cytoplasmic Ab Type 2	IFA	<1:2

Reflex Information:

Test ID	Reporting name	Methodology	Reference value
AGNBC	AGNA-1 Immunoblot, CSF	Immunoblot (IB)	Negative

AINCC	Alpha Internexin CBA, CSF	CBA	Negative
AMPIC	AMPA-R Ab IF Titer Assay, CSF	IFA	<1:2
AMIBC	Amphiphysin Immunoblot, CSF	IB	Negative
AN1BC	ANNA-1 Immunoblot, CSF	IB	Negative
AN2BC	ANNA-2 Immunoblot, CSF	IB	Negative
CRMWC	CRMP-5-IgG Western Blot, CSF	Western blot	Negative
DPPCC	DPPX Ab CBA, CSF	CBA	Negative
DPPTC	DPPX Ab IFA Titer, CSF	IFA	<1:2
GABIC	GABA-B-R Ab IF Titer Assay, CSF	IFA	<1:2
GFACC	GFAP CBA, CSF	CBA	Negative
GFATC	GFAP IFA Titer, CSF	IFA	<1:2
IG5CC	IgLON5 CBA, CSF	CBA	Negative
IG5TC	IgLON5 IFA Titer, CSF	IFA	<1:2
GL1CC	mGluR1 Ab CBA, CSF	CBA	Negative
GL1TC	mGluR1 Ab IFA Titer, CSF	IFA	<1:2
NFHCC	NIF Heavy Chain CBA, CSF	CBA	Negative
NIFTC	NIF IFA Titer, CSF	IFA	<1:2
NFLCC	NIF Light Chain CBA, CSF	CBA	Negative
NMDIC	NMDA-R Ab IF Titer Assay, CSF	IFA	<1:2
PC1BC	PCA-1 Immunoblot, CSF	IB	Negative
PCTBC	PCA-Tr Immunoblot, CSF	IB	Negative
PCA1C	Purkinje Cell Cytoplasmic Ab Type 1	IFA	<1:2

Neuron-restricted patterns of IgG staining that do not fulfill criteria for ANNA-1, ANNA-2, ANNA-3, CRMP-5-IgG, PCA-1, PCA-2, or PCA-Tr may be reported as "unclassified anti-neuronal IgG." Complex patterns that include nonneuronal elements may be reported as "uninterpretable."

Note: CRMP-5 titers lower than 1:2 are detectable by recombinant CRMP-5 Western blot analysis. CRMP-5 Western blot analysis will be done on request on stored spinal fluid (held 4 weeks). This supplemental testing is recommended in cases of chorea, vision loss, cranial neuropathy, and myelopathy. Call the Neuroimmunology Laboratory at 800-533-1710 to request CRMP-5 Western blot.

Interpretation

Antibodies specific for neuronal, glial, or muscle proteins are valuable serological markers of autoimmune epilepsy and of a patient's immune response to cancer. These autoantibodies are not found in healthy subjects, and are

usually accompanied by subacute neurological symptoms and signs. It is not uncommon for more than 1 of the following autoantibodies to be detected in patients with autoimmune dementia:

-Plasma membrane antibodies (N-methyl-D-aspartate (NMDA) receptor; 2-amino-3-(5-methyl-3-oxo-1,2- oxazol-4-yl) propanoic acid (AMPA) receptor; gamma-amino butyric acid (GABA-B) receptor). These autoantibodies are all potential effectors of dysfunction.

-Neuronal nuclear autoantibody type 1 (ANNA-1) or type 3 (ANNA-3).

-Neuronal or muscle cytoplasmic antibodies (amphiphysin, Purkinje cell antibody-type 2 [PCA-2], collapsin response-mediator protein-5 neuronal [CRMP-5-IgG], or glutamic acid decarboxylase [GAD65] antibody).

Cautions

Negative results do not exclude autoimmune dementia or cancer.

This evaluation does not detect Ma1 or Ma2 antibodies (alias: MaTa). Ma2 antibody has been described in patients with brainstem and limbic encephalitis in the context of testicular germ cell neoplasms. Scrotal ultrasound is advisable in men who present with unexplained subacute encephalitis.

Clinical Reference

1. McKeon A, Lennon, VA, Pittock, SJ: Immunotherapy Responsive Dementias and Encephalopathies. Continuum (Minneap Minn) 2010;16(2):80-101

2. Flanagan EP, McKeon A, Lennon VA, et al: Autoimmune dementia: clinical course and predictors of immunotherapy response. Mayo Clin Proc 2010 Oct;85(10):881-897

3. Geschwind MD, Tan KM, Lennon VA, et al: Voltage-gated potassium channel autoimmunity mimicking Creutzfeldt-Jakob disease. Arch Neurol 2008 Oct;65(10):1341-1346

4. Lancaster E, Martinez-Hernandez E, Dalmau J: Encephalitis and antibodies to synaptic and neuronal cell surface proteins. Neurology 2011;77(2):179-189

5. Klein CJ, Lennon VA, Aston PA, et al: Insights from LGI1 and CASPR2 potassium channel complex autoantibody subtyping. JAMA Neurol 2013;70(2):229-234

Performance

Method Description

Indirect Immunofluorescence Assay:

Before testing, patient's specimen is preabsorbed with liver powder to remove nonorgan-specific autoantibodies. After applying to a composite substrate of frozen mouse tissues (brain, kidney, and gut) and washing, fluorescein-conjugated goat-antihuman IgG is applied to detect the distribution and pattern of patient IgG binding.(Pittock SJ, Kryzer TJ, Lennon VA: Paraneoplastic antibodies coexist and predict cancer, not neurological syndrome. Ann Neurol 2004;56:715-719; Basal E, Zalewski N, Kryzer TJ, et al: Paraneoplastic neuronal intermediate filament autoimmunity. Neurology 2018 Oct 30;91[18]:e1677-e1689)

Radioimmunoassay:

Duplicate aliquots of patient specimen are incubated with I(125)-labeled antigen. Immune complexes, formed by adding secondary (goat) antihuman immunoglobulin, are pelleted by centrifugation and washed. Gamma emission

from the washed pellet is counted, and mean counts per minute (cpm) are compared with results yielded by high positive and negative control sera. Specimen yielding cpm higher than the background cpm yielded by normal human specimen are retested to confirm positivity and titrated as necessary to obtain a value in the linear range of the assay. The antigen binding capacity (nmol per liter) is calculated from the cpm precipitated at a dilution yielding a linear range value.(Griesmann GE, Kryzer TJ, Lennon VA: Autoantibody profiles of myasthenia gravis and Lambert-Eaton myasthenic syndrome. In Manual of Clinical and Laboratory Immunology. Sixth edition. Edited by NR Rose, RG Hamilton, et al.Â ASM Press, 2002, pp 1005-1012; Walikonis JE, Lennon VA: Radioimmunoassay for glutamic acid decarboxylase [GAD65] autoantibodies as a diagnostic aid for stiff-man syndrome and a correlate of susceptibility to type1 diabetes mellitus. Mayo Clin Proc 1998;73[12]:1161-1166; Jones AL, Flanagan EP, Pittock SJ, et al: Responses to and Outcomes of Treatment of Autoimmune Cerebellar Ataxia in Adults. JAMA Neurol 2015 Nov;72[11]:1304-1312 doi: 10.1001/jamaneurol.2015.2378)

Western Blot:

Neuronal antigens extracted aqueously from adult rat cerebellum, full-length recombinant human collapsin response-mediator protein-5 (CRMP-5), or full-length recombinant human amphiphysin protein is denatured, reduced, and separated by electrophoresis on 10% polyacrylamide gel. IgG is detected autoradiographically by enhanced chemiluminescence.(Yu Z, Kryzer TJ, Griesmann GE, et al: CRMP-5 neuronal autoantibody: marker of lung cancer and thymoma-related autoimmunity. Ann Neurol 2001 February;49[2]:146-154; Dubey D, Jitprapaikulsan J, Bi H, et al: Amphiphysin-IgG autoimmune neuropathy: A recognizable clinicopathologic syndrome. Neurology 2019 Oct 17 pii: 10.1212/WNL.0000000000008472. doi: 10.1212/WNL.0000000000008472)

Immunoblot:

All steps are performed at room temperature (18-28 degrees C) utilizing the EUROBlot One instrument. Diluted patient specimen (1:12.5) is added to test strips (strips containing recombinant antigen manufactured and purified using biochemical methods) in individual channels and incubated for 30 minutes. Positive specimens will bind to the purified recombinant antigen and negative specimens will not bind. Strips are washed to remove unbound antibodies and then incubated with anti-human IgG antibodies (alkaline phosphatase-labelled) for 30 minutes. The strips are again washed to remove unbound anti-human IgG antibodies and nitroblue tetrazolium chloride/5-Bromo-4-chloro-3-indolylphosphate (NBT/BCIP) substrate is added. Alkaline phosphatase enzyme converts the soluble substrate into a colored insoluble product on the membrane to produces a black band. Strips are digitized via picture capture on the EUROBlot One instrument and evaluated with the EUROLineScan software.(O'Connor K, Waters P, Komorowski L, et al: GABAA receptor autoimmunity: A multicenter experience. Neurol Neuroimmunol Neuroinflamm 2019 Apr 4;6[3]:e552 doi: 10.1212/NXI.0000000000000552)

Cell Binding Assay:

Patient specimen is applied to a composite slide containing transfected and nontransfected HEK-293 cells. After incubation and washing, fluorescein-conjugated goat-antihuman IgG is applied to detect the presence of patient IgG binding.(Package insert: IIFT: Neurology Mosaics, Instructions for the indirect immunofluorescence test. EUROIMMUN, Lubeck, Germany, FA_112d-1_A_UK_C13, 02/2019)

PDF Report

No

Day(s) and Time(s) Test Performed

GL1CC, IG5CC:

Monday, Thursday; 6 p.m.

AINCC, NFHCC, NFLCC:

Tuesday, Thursday; 6 p.m.

GFACC

Monday, Wednesday, Friday; 6 p.m.

CRMWC:

Monday through Thursday; 8 a.m.

GD65C:

Monday through Friday; 5 a.m., 2 p.m.

Saturday, Sunday; 7 a.m.

AGNBC, AMIBC, AN1BC, AN2BC, PC1BC, PCTBC:

Monday through Friday; 6 p.m.

AGN1C, AMPHC, AMPIC, ANN1C, ANN2C, ANN3C, CRMC, DPPIC, DPPTC, GABIC, GFAIC, GFATC, GL1IC, GL1TC, IG5IC, IG5TC, NIFIC, NIFTC, NMDIC, PCA1C, PCA2C, PCTRC:

Monday through Friday; 5 a.m., 7 a.m., 5 p.m.

Saturday, Sunday; 6 a.m.

AMPCC, CS2CC, DPPCC, GABCC, LG1CC, NMDCC:

Monday through Friday; 10 p.m.

Sunday; 10 p.m.

Analytic Time

8 days

Maximum Laboratory Time

11 days

Specimen Retention Time

28 Days

Performing Laboratory Location

Rochester

Fees and Codes

Fees

- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact Customer Service.

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

86255 x18

86341 x1

84182 AGNBC (if appropriate)

86255 AINCC (if appropriate)

86256 AMPIC (if appropriate)

84182 AMIBC (if appropriate)

84182 AN1BC (if appropriate)

84182 AN2BC (if appropriate)

84182 CRMWC (if appropriate)

86255 DPPCC (if appropriate)

86256 DPPTC (if appropriate)

86256 GABIC (if appropriate)

86255 GFACC (if appropriate)

86256 GFATC (if appropriate)

86255 IG5CC (if appropriate)

86256 IG5TC (if appropriate)

86255 GL1CC (if appropriate)

86256 GL1TC (if appropriate)

86255 NFHCC (if appropriate)

86256 NIFTC (if appropriate)

86255 NFLCC (if appropriate)

86256 NMDIC (if appropriate)

84182 PC1BC (if appropriate)

84182 PCTBC (if appropriate)

86255 PCA1C (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
DMC2	Dementia-Autoimmune Evaluation, CSF	94707-7

Result ID	Test Result Name	Result LOINC Value
61513	NMDA-R Ab CBA, CSF	93502-3
61514	AMPA-R Ab CBA, CSF	93491-9
61515	GABA-B-R Ab CBA, CSF	93426-5
34254	Dementia, Interpretation, CSF	69048-7
64280	LGI1-IgG CBA, CSF	94288-8
64282	CASPR2-IgG CBA, CSF	94286-2
64929	DPPX Ab IFA, CSF	82989-5
64927	mGluR1 Ab IFA, CSF	94361-3
605156	GFAP IFA, CSF	94360-5
606965	NIF IFA, CSF	In Process
606947	IgLON5 IFA, CSF	In Process
89079	AGNA-1, CSF	94355-5
5906	Amphiphysin Ab, CSF	94354-8
3852	ANNA-1, CSF	94356-3
7472	ANNA-2, CSF	94357-1
21633	ANNA-3, CSF	94358-9
21650	CRMP-5-IgG, CSF	94706-9
21632	PCA-2, CSF	94364-7
21631	PCA-Tr, CSF	94362-1
21702	GAD65 Ab Assay, CSF	94359-7
36429	Reflex Added	77202-0