Warde Medical Laboratory

LABORATORY REPORT

Example Client, XYZ123
1234 Warde Road
Ann Arbor MI 48108

EXAMPLE, REPORT W
WX0000003826 F 12/05/1988 34 Y

Referral Testing

Collected: 09/22/2023 11:28 Received: 09/22/2023 11:28

Test Name	Result	Flag	Ref-Ranges	Units	Site

LGI1 Antibody Test

Interpretation — See Note — QCRL

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NEGATIVE
This test did not detect abnormal levels of anti-LGI1 antibodies.
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Technical Results — See Note — QCRL

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Interpretive Result Table
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INTERPRETIVE RESULT: Negative
TEST: anti-LGI1
TECHNICAL RESULT: No abnormal levels of antibodies detected
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Comments — See Note — QCRL

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Comments: This result does not exclude a diagnosis of an autoimmune
etiology for the neurological symptoms associated with paraneoplastic
disorder.

Recommendations: Health care providers, please contact the Athena
Diagnostics Client Services Department at 1-800-394-4493 if you wish
to speak with a clinical consultant regarding this test result.

Other testing available: Athena Diagnostics recommends additional
testing, if not already performed. Athena Diagnostics currently offers
the following antibody tests: anti-Hu, anti-Yo, anti-Zic4, anti-CV2,
anti-Ma1, anti-Ta, anti-Ri, anti-Recoverin, anti-VGCC, anti-VGKC,
anti-Amphiphysin, anti-G-AChR, anti-NMDA, anti-GAD65, and anti-CASPR2.
Please contact the Athena Diagnostics Client Services Department or
visit AthenaDiagnostics.com for information regarding additional
testing that may be appropriate based on this individual's clinical
presentation.

Background information: Paraneoplastic neurological syndromes or
disorders (PNS or PND) are rare immune-mediated disorders resulting
from the damage to the nervous system due to remote effects of a tumor
(1, 2). PND of the central nervous system may occur in association
with either onconeural antibodies directed against intracellular
antigens, or antibodies targeted against neuronal surface antigens (1,
3).
Clinical features of PND may include ataxia, limbic or brainstem
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encephalitis, sensory neuropathy, subacute cerebellar degeneration, dizziness, nystagmus, dysphagia, dysarthria, loss of muscle tone, loss of memory, vision problems, sleep disturbances, dementia, seizures, and/or sensory loss in the limbs (4). In approximately 60% of PND cases, neuropathic symptoms precede a tumor diagnosis (1). Some of the tumors related to PND include small cell lung cancer, ovarian teratoma and carcinoma, thymoma, lymphoma, breast cancer, and/or testicular cancer (2). PND may also include Lambert-Eaton myasthenic syndrome (LEMS), stiff person syndrome, encephalomyelitis, myasthenia gravis, neuromyotonia, and opsoclonus-myoclonus (4). However, these disorders can also occur in individuals without underlying cancer.
Leucine-rich glioma-inactivated protein 1 (LGI1) is a secreted neuronal protein that connects presynaptic and postsynaptic protein complexes to finely tuned synaptic transmission (5). It is speculated that antibody-mediated disruption of LGI1 function causes increased excitability, which may result in seizures or encephalopathy. The predominant features of limbic encephalitis include severe short-term memory impairment with psychiatric symptoms such as personality change, depression, anxiety, hallucinations, confusion and faciobrachial tonic seizures (6, 7). The tumors associated with LGI1 positive antibody include thyroid carcinoma, small-cell lung carcinoma, kidney cell carcinoma, ovarian carcinoma and thymoma (8). Since neurological symptoms often precede the detection of an occult malignancy, patient monitoring is recommended, and a search for occult cancer should be considered.
Isolated cases of Morvan's syndrome, neuromyotonia, epilepsy and other neurological symptoms were also identified in individuals positive for LGI1 antibodies (9).

Methods	See Note				QCRL

A cell-based assay (CBA) was used to detect antibodies by indirect immunofluorescence test (IIFT) on a recombinant cell line expressing the antigen.

Limitations of analysis: Cross-interfering antibodies may be present in samples and appear as borderline or low positive results. Specimen type may affect sensitivity and specificity of this assay. False positive or false negative results may occur rarely. All results should be interpreted in the context of clinical findings, relevant medical history, and other ancillary laboratory data.

References	See Note				QCRL

1. Darnell, RB, et al. (2006) Semin Oncol 33: 270-98. (PMID: 16769417)
2. Titulaer, MJ, et al. (2011) Eur J Neurol 18: 19-e3. (PMID: 20880069) 3. Zuliani, L, et al. (2012) J Neurol Neurosurg Psychiatry

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83: 638-45. (PMID: 22448032) 4. Rosenfeld, MR, et al. (2010) Oncologist 15: 603-17. (PMID: 20479279) 5. Camacho, F, et al. (1991) Dermatologica 182: 63-4. (PMID: 2013359) 6. Gultekin, SH, et al. (2000) Brain 123 (Pt 7): 1481-94. (PMID: 10869059) 7. Irani, SR, et al. (2011) Ann Neurol 69: 892-900. (PMID: 21416487) 8. Lai, M, et al. (2010) Lancet Neurol 9: 776-85. (PMID: 20580615) 9. Irani, SR, et al. (2010) Brain 133: 2734-48. (PMID: 20663977)

This test was developed and its analytical performance characteristics have been determined by Athena Diagnostics. It has not been cleared or approved by the U.S. Food and Drug Administration. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Laboratory oversight provided by Vivekananda Datta, M.D., Ph.D., CLIA license holder, Athena Diagnostics (CLIA# 22D0069726)

Testing performed at:
Athena Diagnostics 200 Forest Street Marlborough, MA 01752
Test Performed at:
Athena Diagnostics, Inc.
200 Forest Street, 2nd Floor
Marlborough, MA 01752 V Datta MD, PhD

Performing Site:
QCRL: QUEST DIAGNOSTICS REFERENCE LAB CAPISTRANO 33608 Ortega Highway San Juan Capistrano CA 92675

Reported Date: 2023.09.22 11:29 LGI1