

Patient ID 321	Patient Name IMPLEMENTATION, TEST T	Birth Date 1973-05-01	Sex F	Age 51
Order Number X100462301	Client Order Number X100462301	Ordering Physician UNKNOWN, PROVIDER	Report Notes	
Account Information C7028846 DLMP Rochester		Collected 01 May 2024 10:00		

CJD Evaluation, CSF

CJD Eval Interp, CSF

MCR

A negative RT-QulC and normal t-Tau/p-Tau (181) ratio suggests prion disease is unlikely.

Unexpectedly negative RT-QulC testing should prompt careful consideration of the differential diagnosis. If there is high suspicion of prion disease, repeat testing with RT-QulC may be warranted. A small subset of cases initially negative by RT-QulC may become positive as the disease progresses.(1) However, RT-QulC may be persistently negative in a small proportion of patients with definite prion disease.(2) False negative RT-QulC results are most often encountered in cases of genetic prion disease, such as fatal familial insomnia and Gerstmann-Straussler-Scheinker, and in atypical sporadic prion disease subtypes that have slower indolent disease progression and often have low total Tau and t-Tau/p-Tau (181) ratio. These results should be interpreted in the appropriate clinical context along with other clinical and paraclinical findings.

The t-Tau/p-Tau (181) ratio has been reported to have higher diagnostic accuracy compared to total Tau or 14-3-3.(3,4)

References:

- Shir D, Lazar EB, Graff-Radford J, et al: Analysis of clinical features, diagnostic tests, and biomarkers in patients with suspected Creutzfeldt-Jakob disease, 2014–2021. JAMA Netw Open. 2022 Aug 1;5(8):e2225098.
- Rhoads DD, Wrona A, Foutz A, et al: Diagnosis of prion diseases by RT-QulC results in improved surveillance. Neurology. 2020 Aug 25;95(8):e1017-e1026.
- Hamlin C, Puoti G, Berri S, et al: A comparison of tau and 14-3-3 protein in the diagnosis of Creutzfeldt-Jakob disease. Neurology. 2012 Aug 7;79(6):547–52.
- Skillback T, Rosen C, Asztely F, Mattsson N, Blennow K, Zetterberg H: Diagnostic performance of cerebrospinal fluid total tau and phosphorylated tau in Creutzfeldt-Jakob disease: results from the Swedish Mortality Registry. JAMA Neurol. 2014 Apr;71(4):476–83.

Result Name	Value	Unit	Reference Value	Performing Site
RT-QulC Prion, CSF	Negative		Negative	1 MCR

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
MCR	Mayo Clinic Laboratories - Rochester Main Campus	200 First Street SW, Rochester, MN 55905	William G. Morice M.D. Ph.D	24D0404292
SDL	Mayo Clinic Laboratories - Rochester Superior Drive	3050 Superior Drive NW, Rochester MN 55905	William G. Morice M.D. Ph.D.	24D1040592

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Tau CJD Evaluation, CSF

Result Name	Value	Unit	Reference Value	Performing Site
t-Tau/p-Tau	10	ratio	≤18	SDL
Total-Tau	200	pg/mL	≤393	2 SDL
ADDITIONAL INFORMATION The testing method is an electrochemiluminescence assay manufactured by Roche Diagnostics Inc. Values obtained with different assay methods or kits may be different and cannot be used interchangeably.				
Phospho-Tau(181P)	20.0	pg/mL		SDL
ADDITIONAL INFORMATION The testing method is an electrochemiluminescence assay manufactured by Roche Diagnostics Inc. Values obtained with different assay methods or kits may be different and cannot be used interchangeably.				

Received: 02 May 2024 11:34

Reported: 02 May 2024 11:39

Laboratory Notes

- 1 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.
- 2 This test has been modified from the manufacturer's instructions. Its performance characteristics were 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.

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