

ADmark[®] Phospho-Tau/ Total Tau/Aβ42 Analysis and Interpretation is now available from Quest Diagnostics

The combination of these 3 biomarkers enables a more accurate diagnosis of Alzheimer's disease

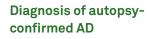


It's essential to have a set of biomarkers **that discriminates Alzheimer's disease (AD) from other forms of dementia.** The biomarker P-tau181 fulfills the proposed criteria for differentiation of AD and non-AD, and particularly of AD and frontotemporal dementia (FTD).¹

In patients presenting with mild cognitive impairment (MCI), cerebrospinal fluid (CSF) assessment of beta amyloid (Aβ42), total tau (t-tau), and phosphorylated tau (p-tau) has shown strong clinical utility^{2,3}:

Predicting progression from MCI to AD

sensitivity 95[%] specificity 87%



sensitivity 94[%] SPECIFICITY

Differentiating AD from other types of dementia



specificity 100%



The Alzheimer's Association has published appropriate-use criteria for CSF biomarkers in the diagnosis of AD

Some of these appropriate indications include patients with4:

Subjective cognitive decline who are considered to be at risk for AD



Persistent, progressing, and unexplained MCI



Symptoms that suggest possible AD



Core criteria for probable AD with typical age of onset

The CSF biomarkers AB42, t-tau, and p-tau reflect the core components of AD pathology in line with the research framework provided by the National Institute on Aging-Alzheimer's Association (NIA-AA).⁵

CSF BIOMARKER	AD SIGNATURE
β-Amyloid Protein 1-42	↓ Low
Total Tau Protein	↑ High
Phosphorylated Tau Protein	↑ High

CSF tau/A β 42 ratio is able to predict future dementia in cognitively normal adults⁶

Quest can help you provide a clinically relevant differential diagnosis of Alzheimer's disease

TEST CODE	TEST NAME	SPECIMEN VOLUME [®] /TUBE TYPE	SETUP/ANALYTIC TIME
<u>92433</u>	ADmark [®] Phospho-Tau, Total-Tau, Aβ42	2 mL CSF, polypropylene tube	7-14 days
	CSF Analysis & Interpretation (Symptomatic)		

^a CSF must be collected in a polypropylene tube. Glass and polystyrene are not acceptable. CSF should be shipped on a cold pack or frozen on dry ice. Whole blood samples should remain room temperature



Learn more \rightarrow

References

- 1. Hampel H, Buerger K, Zinkowski R, et al. Measurement of phosphorylated tau epitopes in the differential diagnosis of Alzheimer disease. Arch Gen Psychiatry. 2004;61(1):95-102. doi:10.1001/ archpsyc.61.1.95
- 2. De Meyer G, Shapiro F, Vanderstichele H, et al. Diagnosis-independent Alzheimer disease biomarker signature in cognitively normal elderly people. Arch Neurol. 2010;67(8):949-956. doi:10.1001/ archneurol.2010.179
- 3. Herskovits AZ, Growdon JH. Sharpen that needle. Arch Neurol. 2010;67(8):918-920. doi:10.1001/archneurol.2010.151 4. Shaw LM, Arias J, Blennow K, et al. Appropriate use criteria for lumbar puncture and cerebrospinal fluid testing in the diagnosis of Alzheimer's disease. Alzheimers Dement. 2018;14(11):1505-1521. doi:10.1016/j.jalz.2018.07.220
- 5. Jack CR Jr, Bennett DA, Blennow K, et al. NIA-AA research framework: toward a biological definition of Alzheimer's disease. *Alzheimers Dement*. 2018;14(4):535-562. doi:10.1016/j.jalz.2018.02.018 6. Fagan AM, Roe CM, Xiong C, et al. Cerebrospinal fluid tau/beta-amyloid (42) ratio as a prediction of cognitive decline in nondemented older adults. *Arch Neurol*. 2007; 64(3):343–349. doi:10.1001/ archneur.64.3.noc60123

Test codes may vary by location. Please contact your local laboratory for more information.

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