



المختبر المرجعي الوطني  
National Reference Laboratory  
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# Revolutionizing Alzheimer's Disease Diagnosis



# UNDERSTANDING ALZHEIMER'S DISEASE

**Alzheimer's Disease (AD)** is a progressive neurodegenerative disorder characterized by amyloid-beta (A $\beta$ ) plaques and neurofibrillary tangles of hyperphosphorylated tau (p-tau), leading to progressive neuronal dysfunction and cell loss.

AD Neuropathologies can remain undetected for years due to the high cost and limited accessibility of traditional diagnostic tools.

These limitations delay diagnosis and intervention, adversely affecting patient outcomes.



***Always remember:***

***"The disease might hide the person underneath, but there's still a person in there who needs your love and attention."***

# CHANGING THE DIAGNOSTIC LANDSCAPE THROUGH CUTTING-EDGE BIOMARKERS

Fluid biomarkers are emerging as powerful tools for diagnosing AD. The CSF AB 40/42 ratio test was the first FDA-approved diagnostic test and serves as evidence of amyloid pathology, supporting eligibility for amyloid-lowering therapy. Blood-based tests provide a further breakthrough in diagnostics by significantly increasing accessibility, while reducing costs and procedural distress compared to CSF or imaging methods.

Among blood-based biomarkers, p-Tau 217 stands out as a transformative diagnostic tool, offering:



01

Earlier and  
more accurate  
AD diagnosis



02

Better patient  
care and  
treatment  
outcomes



03

Improved patient  
stratification  
for inclusion in  
clinical trials



04

Greater specificity  
and sensitivity than other  
blood-based biomarkers

NRL's p-Tau 217 assay demonstrates high accuracy in predicting AD pathology, as confirmed by PET imaging.

***Always remember:***

***"Dementia patients are people with a sane past and most times, they forget parts of them. It is our job to remember who they were."***





# ADVANCING ALZHEIMER'S DISEASE DIAGNOSIS

**With a commitment to clinical excellence,** NRL provides state-of-the-art laboratory testing for neurodegenerative diseases. Our validated assays, developed using extensive research and testing, offer industry-leading accuracy for AD diagnosis.



**Contact us today to learn more about how NRL's advanced testing solutions can benefit your clinical practice or research.**



 **800 675**

 **customer care@nrl.ae**

# COMPREHENSIVE TESTING SOLUTIONS

TEST CODE	TEST NAME
2925011	Phosphorylated Tau 217 (p-Tau 217), Plasma, SIMOA (Mild Cognitive Impairment)
Miscellaneous	Phosphorylated Tau 217 (p-Tau 217), Plasma, CLEIA (Mild Dementia)
Miscellaneous	Amyloid-beta 42 & p-Tau 217, Plasma, CLEIA
2925015	Amyloid-beta 42/40 Ratio (A 42/40) $\beta$ , CSF, CLEIA
2925012	Glial Fibrillary Acidic Protein (GFAP), Plasma, CLEIA
2925013	Neurofilament Light Chain (NfL), Plasma, CLEIA
2925014	Neurofilament Light Chain (NfL), CSF, CLEIA
Miscellaneous	Neurofilament Light Chain (NfL), CSF, CLEIA
Miscellaneous	ATN Profile, Complete (Panel of 4) <b>Tests included:</b> Amyloid-beta 42(A $\beta$ 42), Plasma, CLEIA Phosphorylated Tau 217 (p-Tau 217), Plasma, CLEIA Neurofilament Light Chain (NfL), Plasma, CLEIA BD- Tau, Plasma, SIMOA
Miscellaneous	Complete Alzheimer's Disease Evaluation, Spinal Fluid (Panel of 5, with reflex to Neurogranin) <b>Tests included:</b> Neurofilament Light Chain (NfL), CSF, CLEIA Amyloid-beta 42/40 Ratio (A $\beta$ 42/40), CSF, CLEIA Total Tau (t-Tau), CSF, CLEIA Phosphorylated Tau 181 (p-Tau 181), CSF, CLEIA Neurogranin (Reflex), CSF, ELISA
Miscellaneous	Complete Alzheimer's Disease Evaluation, Spinal Fluid (Panel of 5) <b>Tests included:</b> Neurofilament Light Chain (NfL), CSF, CLEIA Amyloid-beta 42/40 Ratio (A $\beta$ 42/40), CSF, CLEIA Total Tau (t-Tau), CSF, CLEIA Phosphorylated Tau 181 (p-Tau 181), CSF, CLEIA



***Always remember:  
"Kindness in words  
creates confidence,"***



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