Table S1. Summary of statistical analyses

Marker	Mixture modeling cut-point not requiring a reference (n=874)	ROC methods to obtain Youden and 90% positive percent agreement cut points (n=524 with CSF and amyloid PET)	
		A+ versus A− reference*	A+ CI versus A− CU reference*
Aβ42	✓	✓	•
t-tau	✓	•	✓
p-tau	✓	•	✓
t-tau/Aβ42	✓	✓	•
p-tau/Aβ42	✓	✓	•

* Abnormal amyloid PET (A+) versus normal amyloid PET (A−) were defined based on mixture modeling

✓ Obtained cut-points are of primary interest

• Obtained cut-points based on a reference group that is not of primary interest (sensitivity)

Abbreviations: A+, abnormal amyloid PET; A−, normal amyloid PET; CI, cognitively impaired (including mild cognitive impairment and AD dementia); CU, cognitively unimpaired
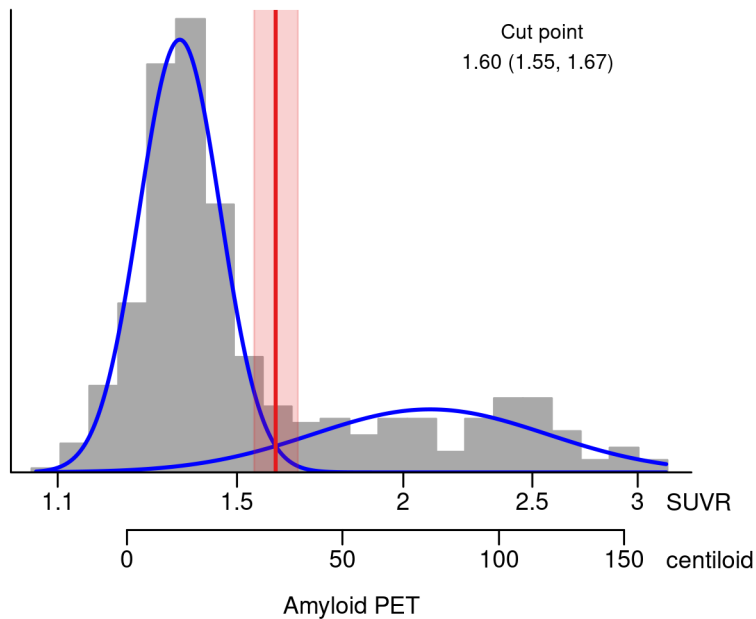
Figure S1. Amyloid PET Cut point. Histogram of amyloid PET in the CSF+PET subset with estimated probability density curves of the two groups identified through univariate mixture modeling (blue). The optimal cut point with 95% bootstrap confidence interval (CI) is shown in red. The centiloid scale is shown below the SUVR scale. The cut point of 1.60 (95% CI 1.55–1.67) corresponds to 32 (95% CI 28–38) centiloid.
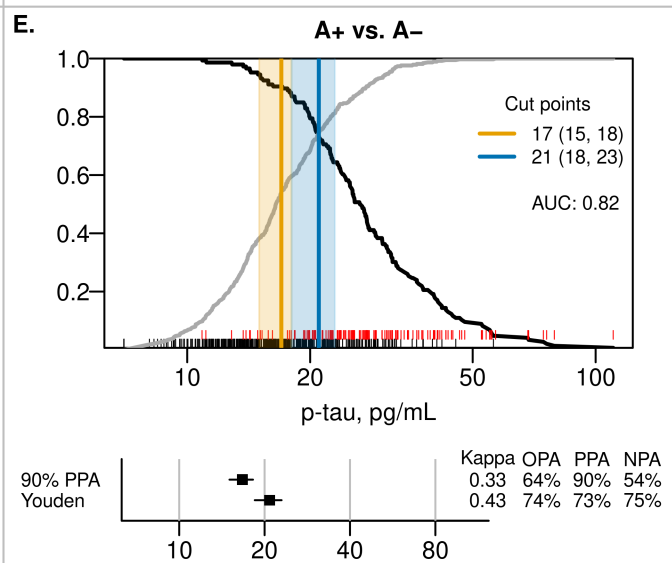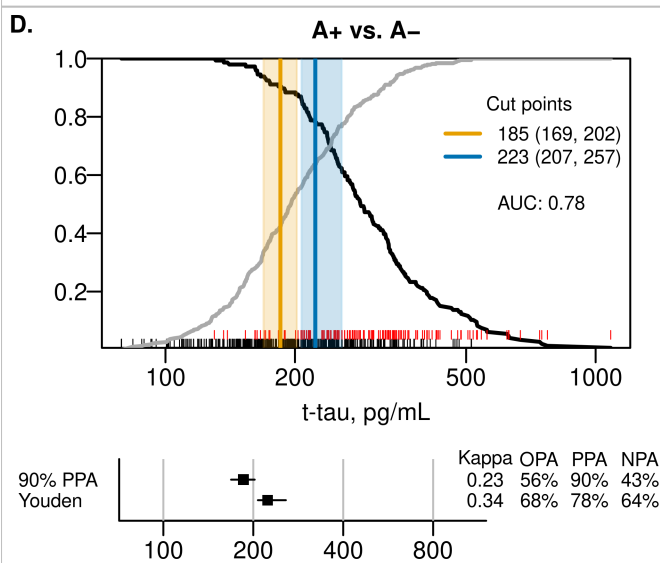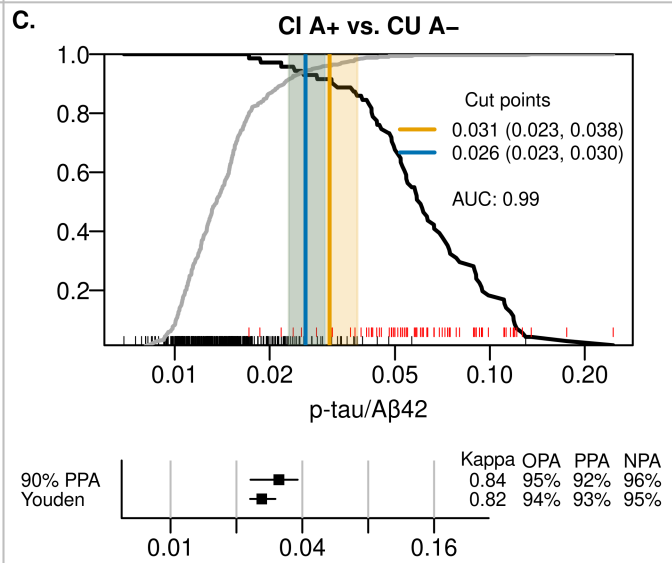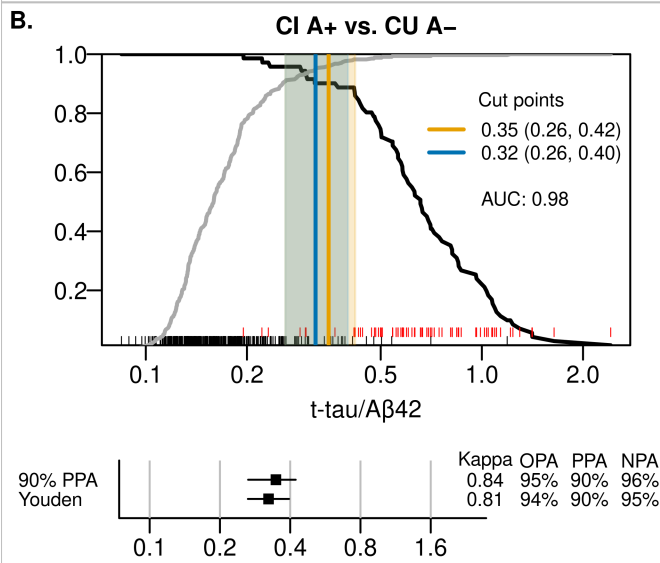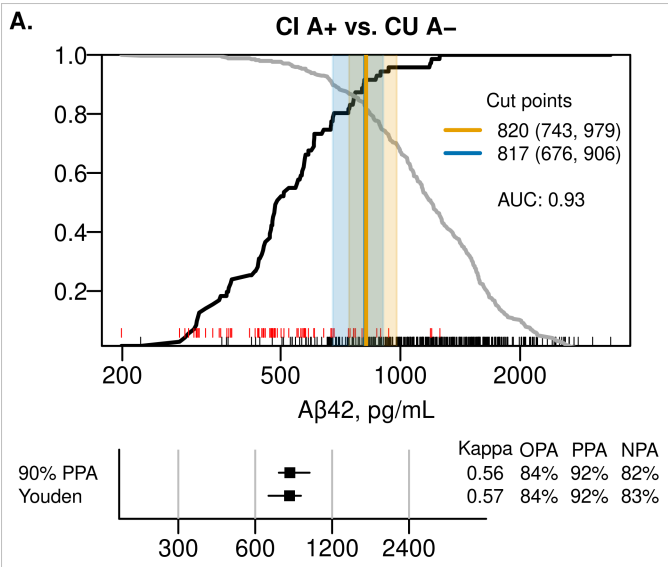
Figure S2. Sensitivity Analyses. In the main ROC analyses, the reference of A+ vs. A− was used for Aβ42 and the t-tau/Aβ42 and p-tau/Aβ42 ratios while the reference of cognitively impaired (CI) A+ vs. cognitively unimpaired (CU) A− was used as the reference for t-tau and p-tau. In sensitivity analyses, the ROC analyses were repeated with the reference not used in the primary analysis.

Panels A–C show the ROC analyses for CI A+ vs. CU A− for Aβ42, t-tau/Aβ42, and p-tau/Aβ42. Panels D and E show the ROC analyses for A+ vs. A− for t-tau and p-tau. A+ was defined as amyloid PET ≥ 1.60 SUVR (32 centiloid). The figures show positive percent agreement (PPA, black line) and negative percent agreement (NPA, grey line). The cut point (95% bootstrap confidence interval) that results in 90% PPA is shown in orange and the Youden method cut point is shown in blue. Rug plots at the bottom of each panel indicate CSF values for cases (A+ or CI A+, red) and controls (A− or CU A−, black). Kappa, overall percent agreement (OPA), PPA, and NPA are reported using the respective references.