

**Table S5** The demographic data of the used subset from validation cohort.

	Serum sample				<i>P</i>
	CN	MCI	ALS	FTD	
N	31	41	14	14	NA
Male/female	19/12	17/24	9/5	7/7	0.29
Age Diagnosis, mean $\pm$ SD	61.39 $\pm$ 9.41	65.88 $\pm$ 8.32	62 $\pm$ 1.57	60.86 $\pm$ 8.80	0.07
MMSE, Mean $\pm$ SD	28.16 $\pm$ 1.57	24.10 $\pm$ 2.95	NA	NA	<0.001
Education(years), Mean $\pm$ SD	6.03 $\pm$ 3.32	7.67 $\pm$ 3.38	NA	NA	0.04
APOE E4 carrier (%)	11.20%	41.50%	NA	NA	<0.001

CN: cognitive normal; MCI: mild cognitive impairment; ALS: amyotrophic lateral sclerosis; FTD: frontotemporal dementia; *P*: NC VS. MCI+AD; NA: not applicable; SD: standard deviation