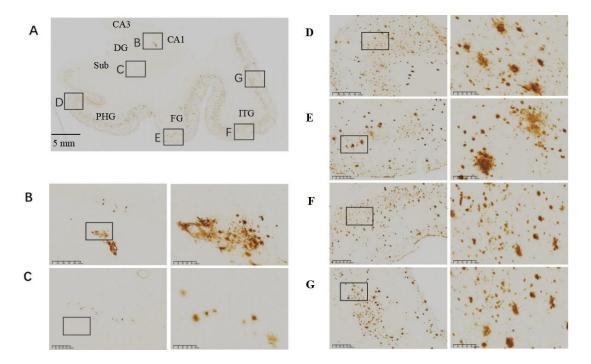


Supplementary Figure 1 The phosphorylated-microtubule-associated protein tau (P-Tau) antibody against neurofibrillary tangles in AD hippocampal formation. A: immunohistochemical staining in a coronal section of the human hippocampal formation; B: AT8 immunoreactivity in the CA3 region at a high magnification view; C: AT8 immunoreactivity in the CA1 region at a high magnification view; D: AT8 immunoreactivity in the PHG region at a high magnification view. Scale bars in A = 5 mm; B, C, D = $400 \mu m$.



Supplementary Figure 2 The specific 6E10 antibody against A β plaques in AD hippocampal formation. A: 6E10 immunohistochemical staining in a coronal section of the human hippocampal formation. B: 6E10 immunoreactivity in the CA1 region at a high magnification view; C: 6E10 immunoreactivity in the Sub region at a high magnification view; D: 6E10 immunoreactivity in the PHG region at a high magnification view; E: 6E10 immunoreactivity in the FGregion at a high magnification view; F and G: 6E10 immunoreactivity in the ITG region at a high magnification view. Scale bars in A = 5 mm; B, C, D, E, F, G = 400 μ m.

Supplementary Table 1 Demographic information of brain donors and staging of Alzheimer-related neuropathology.

Group	Case	Age	Gender	Clinical diagnosis and	Braak NTFs	Thal Aß	CERAD
		(years)		cause of death	stage	phase	score
Control group ($n = 9$; age:	1	75	Male	Respiratory failure	0	0	0
72.33 ± 10.33)	2	57	Male	Respiratory failure	0	0	0
	3	81	Female	Leukemia	0	0	0
	4	54	Male	Diabetes	0	0	0
	5	74	Male	Cerebral infarction	0	0	0
	6	85	Male	Diabetes	0	0	0
	7	76	Female	Lung cancer	0	0	0
	8	77	Female	Multisystem failure	0	0	0
	9	72	Female	Multisystem failure,	0	0	0
				demented			
pAD/AD group ($n = 10$;	10	82	Female	Respiratory failure	III	1	В
age: 79 ± 7.85)	11	76	Male	Cerebral hemorrhage	II	2	В
	12	74	Female	Lung cancer	VI	4	С
	13	96	Female	Alzheimer's disease	IV	1	С

14	87	Male	Alzheimer's disease	IV	4	С
15	87	Female	Alzheimer's disease	VI	6	С
16	74	Female	Alzheimer's disease	IV	3	С
17	74	Male	Alzheimer's disease	VI	5	С
18	73	Male	Alzheimer's disease	VI	5	С
19	75	Female	Multisystem failure	VI	4	С