

Table e-1: Case demographics

Case	Slide/ Tissue	CTE/CTE- ALS/Ctrl	Sex	Decade
1	Tissue	CTE	M	25
2	Tissue	CTE	M	58
3	Tissue	CTE	M	46
4	Tissue	CTE	M	71
5	Tissue	CTE	M	84
6	Tissue	CTE	M	69
7	Slides	CTE-ALS	M	49
8	Slides	CTE-ALS	M	31
9	Slides	CTE-ALS	M	41
10	Slides	CTE-ALS	M	67
11	Slides	CTE-ALS	M	62
12	Slides	CTE	M	82
13	Slides	CTE	M	73
14	Slides	CTE	M	56
15	Slides	CTE	M	75
16	Slides	CTE	M	50
17	Slides	Ctrl	M	83
18	Slides	Ctrl	M	61
19	Slides	Ctrl	M	61

20	Slides	Ctrl	M	55
21	Slides	Ctrl	M	81

Table e-2: Antibodies used

Antibody	Clone	Titre	Epitope	Utility	Company
Tau pThr ¹⁷⁵	Rabbit, polyclonal	1:1000	pThr ¹⁷⁵	WB, IHC	21 st Century
Tau pThr ²³¹	Rabbit, polyclonal	1:1000	pThr ²³¹	IHC	Thermo- Fischer
T22	Rabbit, polyclonal	1:500	Tau oligomer	IHC	EMD Millipore
T14	Mouse, monoclonal	1:3000	Tau aa's 141-178	WB, IP	Thermo-Fisher
T46	Mouse, monoclonal	1:1000	Tau aa's 404-431	WB	Thermo-Fisher
Total tau (ab24230)	Rabbit polyclonal	1:5000	Tau aa's 384-397	WB	Abcam
GSK3 β	Mouse, monoclonal	1:10,000	GSK3 β aa's 1-160	WB	BD Biosciences
GSK3 β pTyr ²¹⁶	Mouse, monoclonal	1:50 (IHC) 1:10,000 (WB)	pTyr ²¹⁶	WB, IHC	BD Biosciences
Alexafluor 488	Goat anti-rabbit	1:200	Secondary	IHC	Life Technologies
Alexafluor 633	Goat anti-mouse	1:200	Secondary	IHC	Life Technologies

WB: western blot, IHC: immunohistochemistry, IP: immunoprecipitation