

Additional file S2.

a) Complete list of primers employed in the validation analysis.

Gene	Oligo Name	Sequence
<i>TUBAL3</i>	TUBAL3-F	AGTAGTTGTGTTGGGTTTGAATA
	Bio-TUBAL3-R	TACTCCTTCCTTTTCTCTACCAATACTA
	TUBAL3-Seq	GTGTTGGGTTTGAATAAT
<i>ABCA1</i>	ABCA1-F	AGGTGGAGGTTGTAGTGA
	Bio-ABCA1-R	CTCCCCTACAAATAAACATTTAAATC
	ABCA1-Seq	TGTTTAGGGTTTATTATAGGT
<i>SRPK2</i>	SRPK2-F	ATGGGAAGATTTATAGGTGATGAGAAAGA
	Bio-SRPK2-R	TTTCAATCCCTTCCCTCCAATTTT
	SRPK2-Seq	ATGGGTTTTTAATTTTATAAAT

b) Results for pyrosequencing validation:

Genes	CpG	Comparisons	p value
<i>TUBAL3</i>	cg10890644	sFTD-TDP43 vs sFTD-Tau	0.0079
<i>ABCA1</i>	cg02945674	sEOAD vs CTRL	0.0204
		PSEN1 vs CTRL	
		PSEN1 vs sEOAD	

For each gene selected, the related CpG and significative comparison in which it was found are shown, as well as the p-value of the beta regression model performed. Abbreviations: CTRL, healthy controls; sEOAD, sporadic early-onset Alzheimer's disease; PSEN1, autosomal dominant Alzheimer's disease due to mutation in *PSEN1*; sFTD-Tau, sporadic frontotemporal dementia with accumulation of tau; sFTD-TDP43, sporadic frontotemporal dementia with accumulation of TDP43.