

Antibody against TDP-43 phosphorylated at serine 375 suggests conformational differences of TDP-43 aggregates among FTLD-TDP subtypes

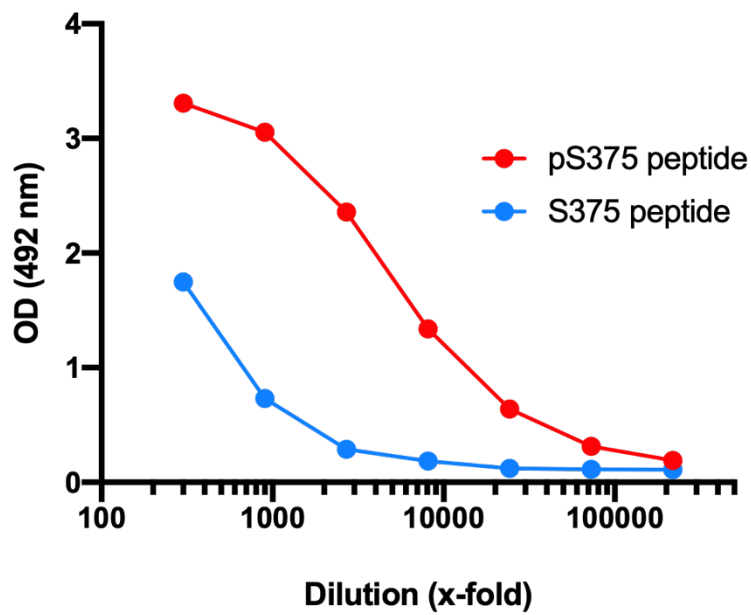
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Supplementary online material:

Supplementary figure 1: Qualitative enzyme-linked immunosorbent assay (ELISA) for pTDP-43^{S375} antibody

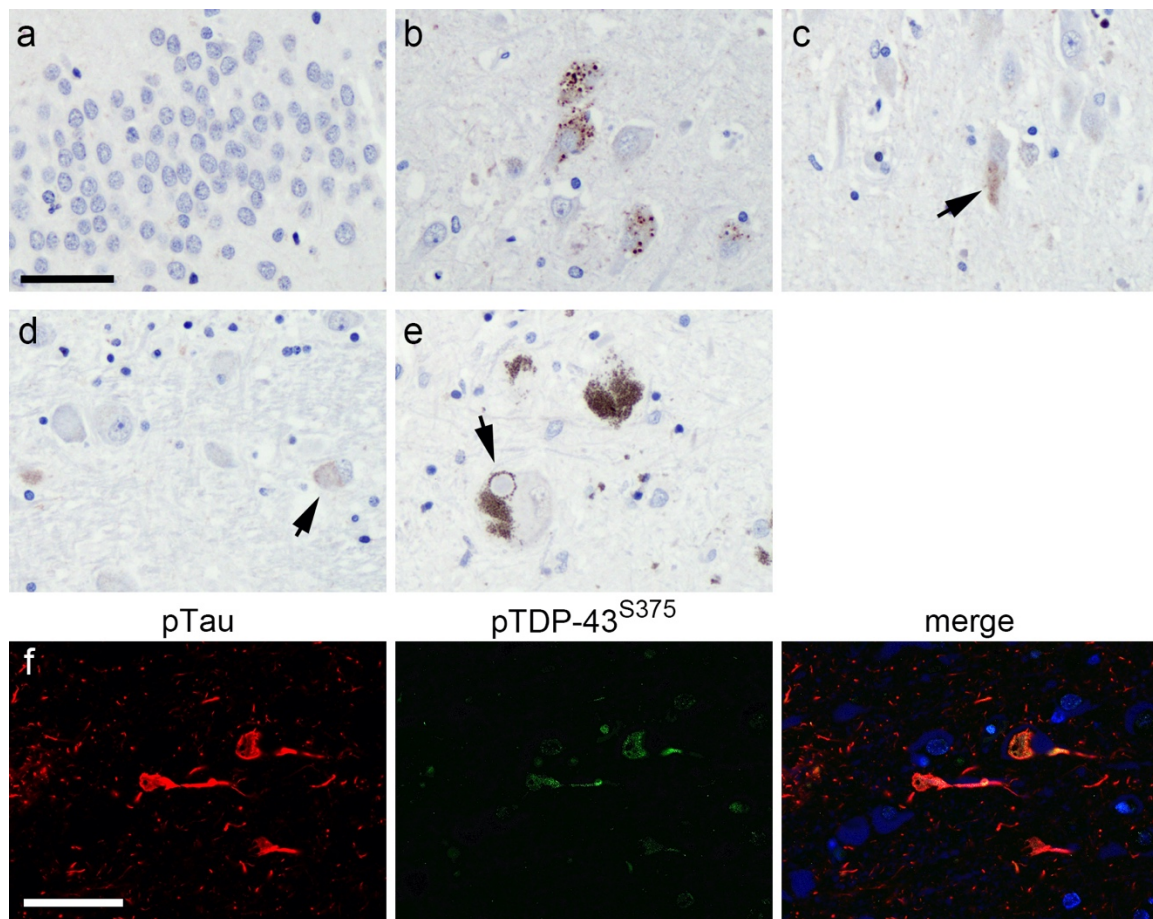
Supplementary figure 2: pTDP-43^{S375} immunohistochemistry in controls

Supplementary figure 3: Immunoblot of HEK293 cell lysates with pTDP-43S375 antibody



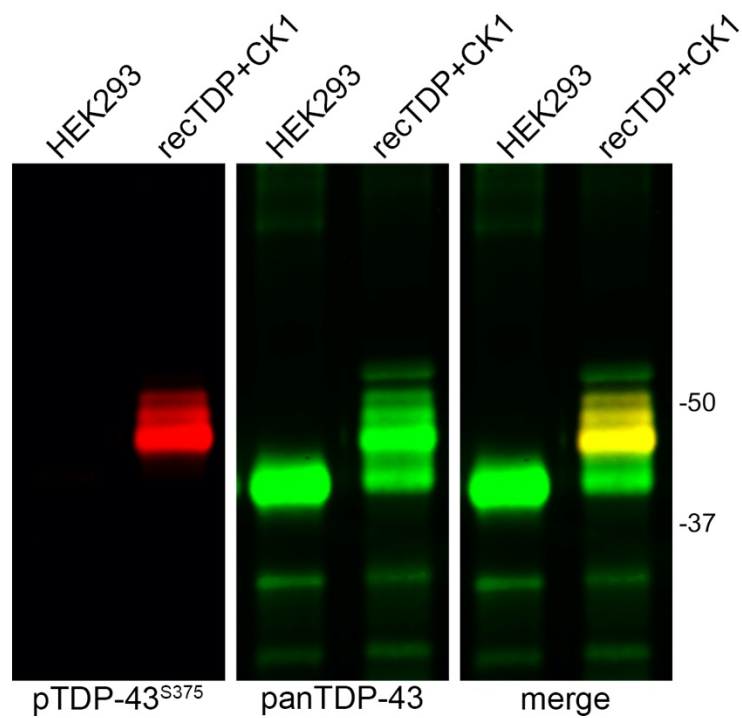
Supplementary figure 1: Qualitative enzyme-linked immunosorbent assay (ELISA) for pTDP-43^{S375} antibody

Indirect ELISA performed with serial dilutions of cross-affinity purified antibody pTDP-43^{S375} against peptides (5-15 µg/well) corresponding to amino acids 368-379 of human TDP-43 with serine 375 phosphorylated (pS375 peptide) or non-phosphorylated (S375 peptide). Data generated by Biosense/Eurogentec as part of their custom polyclonal antibody cross-affinity purification service.



Supplementary figure 2: pTDP-43^{S375} immunohistochemistry in controls

No labeling is seen with pTDP-43^{S375} antiserum in neurologically healthy controls (dentate gyrus) (a). In Alzheimer's disease moderate to strong immunoreactivity is present in granulovacuolar degeneration in hippocampal neurons (b) and weak immunoreactivity in a subset of neurofibrillary tangles (arrow in c). Weak immunoreactivity is also seen in subset of neurofibrillary tangles in PSP case (arrow in d). Lewy bodies in Parkinson's disease are not stained (arrow in e). Weak co-labeling of AT8-positive (red) neurofibrillary tangles with pTDP-43^{S375} (green) demonstrated by double-label immunofluorescence in Alzheimer's disease (f).



Supplementary figure 3: Immunoblot of HEK293 cell lysates with pTDP-43^{S375} antibody

Immunoblot of RIPA lysates from HEK293 cells and recombinant TDP-43 *in vitro* phosphorylated by casein kinase 1 (CK1) used as positive control probed with phosphorylation-independent TDP-43 antibody (panTDP-43, clone 6H6) and phosphorylation specific pTDP-43^{S375} antiserum. Note that no signal is detectable for pTDP-43^{S375} antiserum in cell culture lysate.