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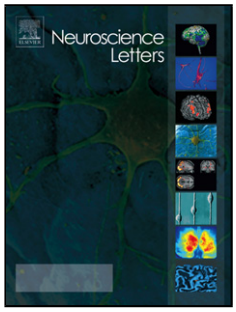

Title: Tctex1 plays a key role in the α-synuclein autophagy lysosomal degradation pathway

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Tctex1 plays a key role in the α-synuclein autophagy lysosomal degradation pathway

Running Head: Tctex1 in α-synuclein degradation.

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Highlights

- Tctex1 and dynein protein levels decreased，but α-synuclein, LC3-II and LAMP2 protein increased after Tctex1 mutation. ; while α-synuclein, LC3-II and LAMP2 proteins were reduced in Tctex1 overexpression cell lines, with the same trend was found in mRNA levels.
- Our results suggest that Tctex1 mutants interference lead to Tctex1 downregulation and dysfunction. Tctex-1 overexpression promoted autophagy lysosome fusion and effectively degraded α-synuclein with increased cell activity.

Abstract: Tctex1 is an important structure of dynein light chain in mammalian cells, clarifying the role of Tctex1 in α-synuclein autophagy lysosomal degradation may offer insights into the formation of Lewy bodies and neuronal death. We