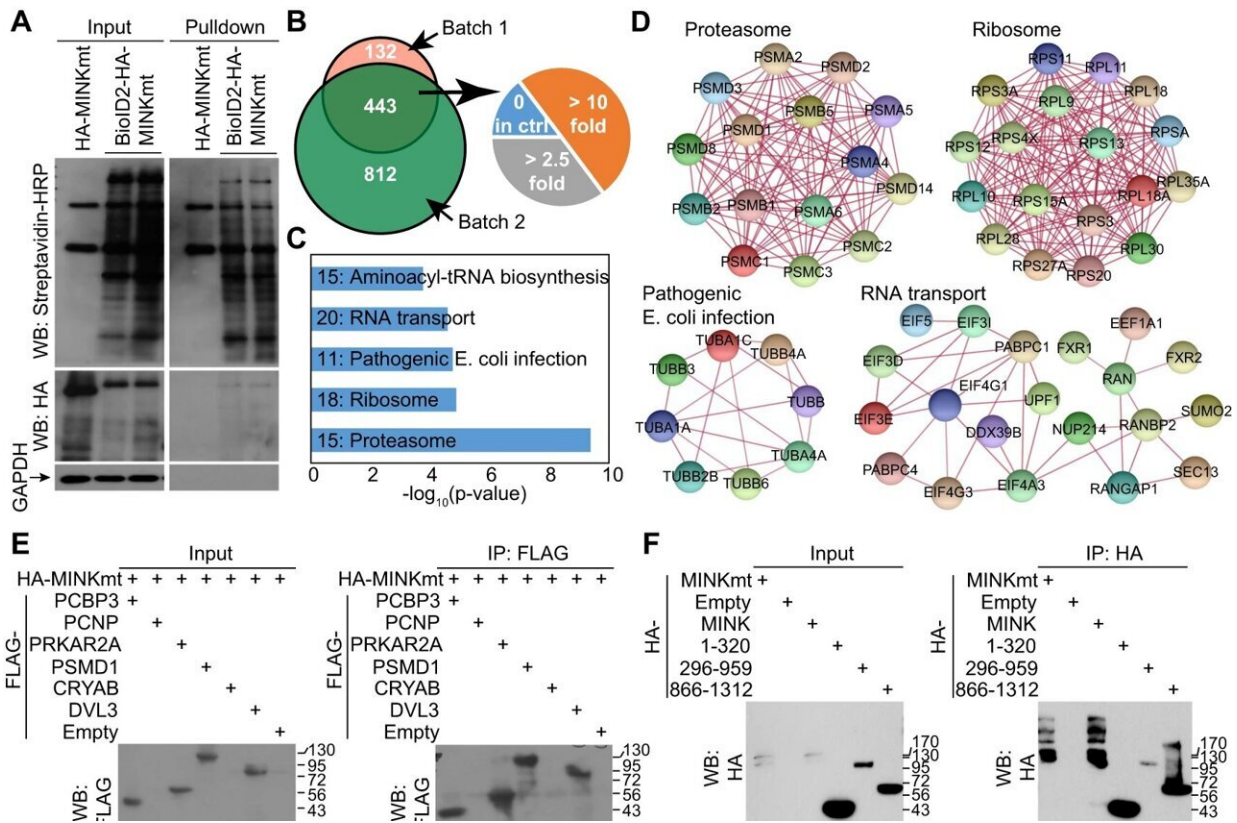


Experimental compound extends life in amyotrophic lateral sclerosis mouse model

February 6 2024



MAP4K interactome and the effect on RANGAP1 subcellular distribution. **A** Western-blotting analysis of proteins after proximity labeling in ALS1-hiMNs at 10 dpi. **B** Venn diagram of proteins from two batches of samples analyzed by Mass Spectrometry. With a cutoff of 2.5-fold enrichment, 443 proteins were common to these two sets of data, including proteins with no expression in control group (0 in ctrl), proteins with over 2.5-fold changes, and proteins with over 10-fold changes. **C** The top 5 KEGG pathways. **D** STRING analysis of association networks of proteins in the top 4 KEGG pathways. **E** Validation of

protein associations in HEK293T cells by co-immunoprecipitations (co-IP) and western blots. **F** co-IP assays in HEK293T cells showing association of MINK1mt with RANGAP1 or RAN. **G** Confocal images showing subcellular distribution of RANGAP1 or RAN in ALS1-hiMNs at 52 dpi. Arrows indicate aggregated cytoplasmic RANGAP1 foci. Scale bar, 10 μ m. **H** MINKmt improves nuclear/cytoplasmic (Nuc/Cyt) ratios of the indicated proteins in ALS1-hiMNs at 52 dpi (mean \pm SEM; $n = 30$ neurons per group; *** p

Citation: Experimental compound extends life in amyotrophic lateral sclerosis mouse model (2024, February 6) retrieved 27 April 2024 from <https://medicalxpress.com/news/2024-02-experimental-compound-life-amyotrophic-lateral.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.