

Supplementary information

Modulation of Actin network and Tau phosphorylation by HDAC6 ZnF UBP domain

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Supplementary figures

Supplementary figure 1. Internalization of HDAC6 ZnF UBP in neuro2a. Neuro2a cells treated with HDAC6 ZnF UBP (20-500 nM) were mapped by antibody against HDAC6 and anti His-tag antibody to determine the internalization of 14 KDa HDAC6 ZnF UBP domain in cells.

Supplementary figure 2. Co-localization of actin and tubulin in neuro2a. A) Immunostaining for β -actin and tubulin was performed to examine their localization in HDAC6 ZnF UBP treated neuro2a cells. Actin and tubulin co-localizes in the neuronal extensions in both treated and untreated cells. However, tubulin was found to be localized more in MTOC in case of HDAC6 treatment. B) Orthogonal projection images for actin and tubulin shows both actin and tubulin in untreated control cells while differential localization of tubulin in HDAC6 treated cells.

Supplementary figure 3. DIC for neurite extensions in HDAC6 ZnF UBP treated cells. HDAC6 ZnF UBP treated cells showed enhancement in actin regulated membrane extensions in the form of podosomes, lamellipodia and podonuts. DIC images for untreated and HDAC6 treated groups indicate marked difference in the pattern of their membrane extensions.

Figure S1

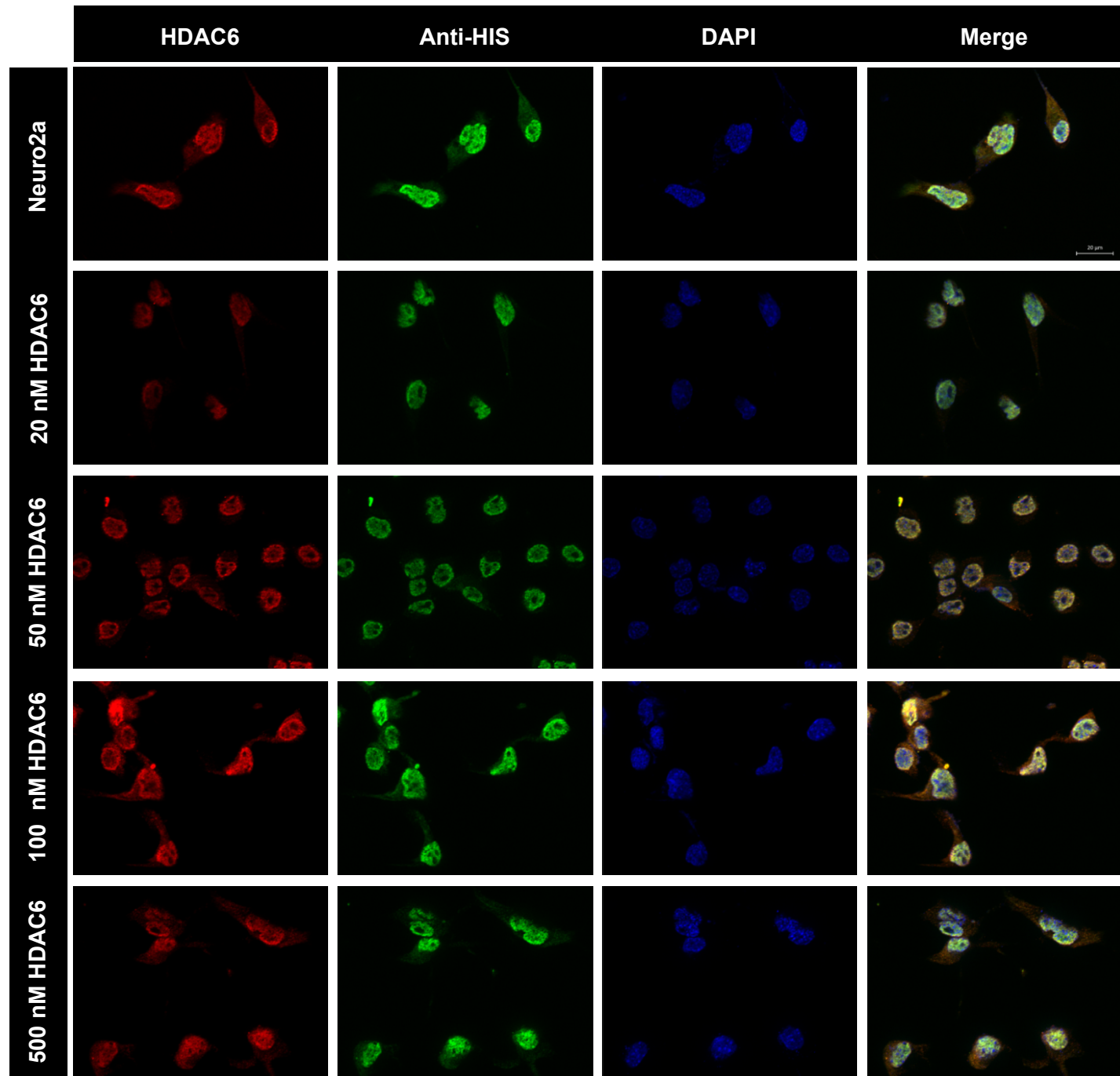


Figure S2

A

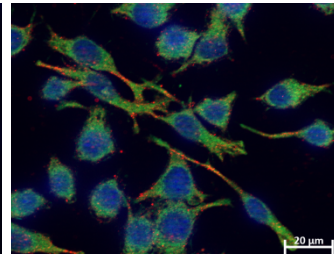
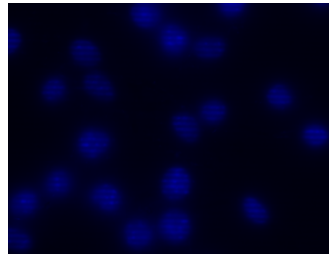
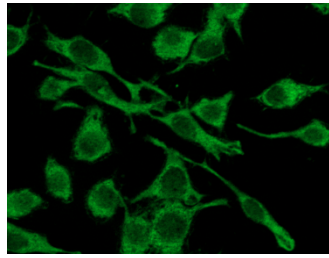
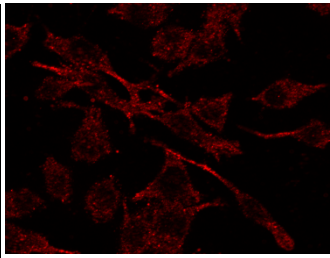
Tubulin

Actin

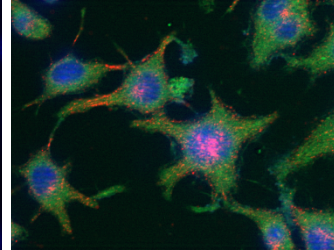
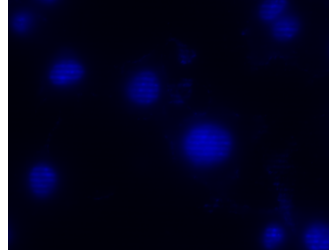
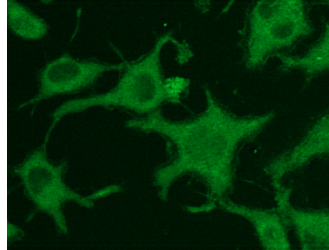
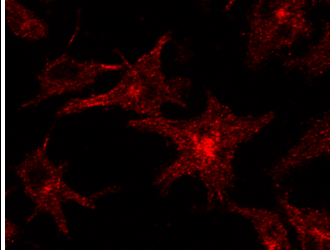
DAPI

Merge

Neuro2a



HDAC6



B

Neuro2a

HDAC6 treated

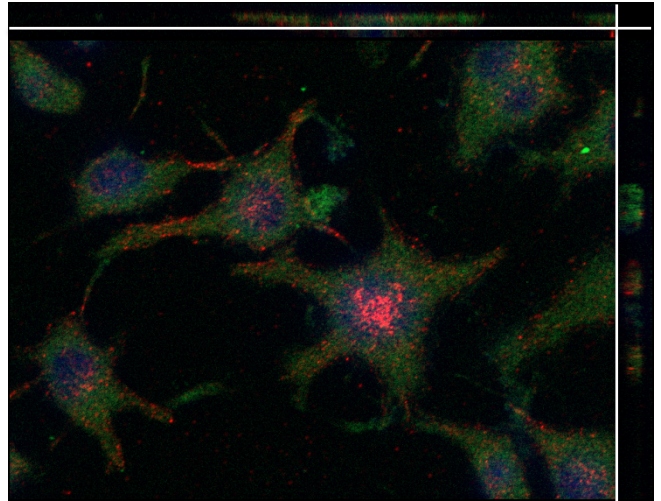
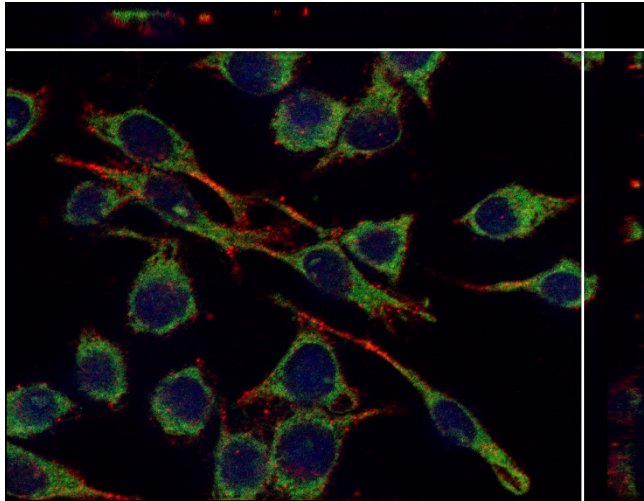
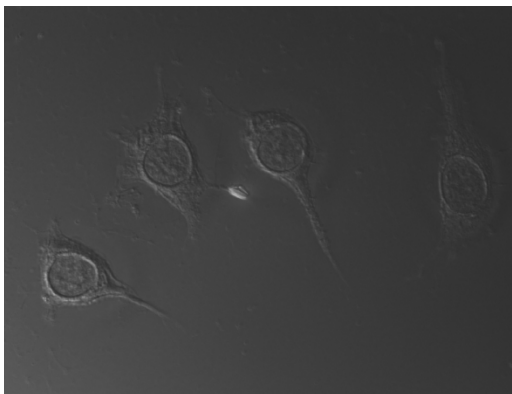
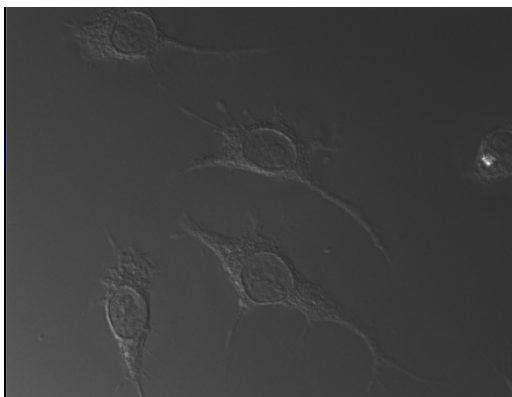
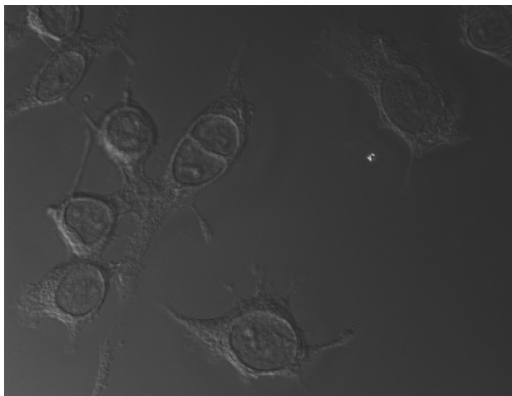
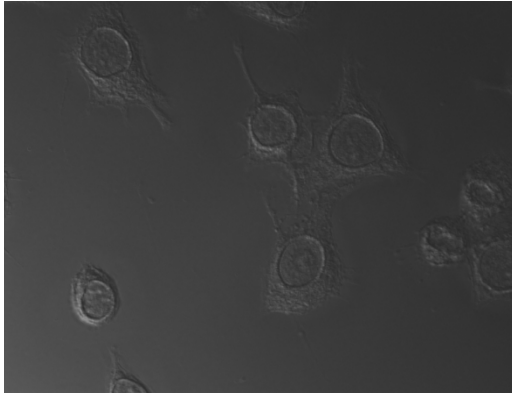


Figure S3

Neuro2a



HDAC6

