Supplementary Materials

1. ENT-A044 promotes cell survival in transfected HEK293Tcells, expressing only TrkB receptor or both p75NTR and TrkB.

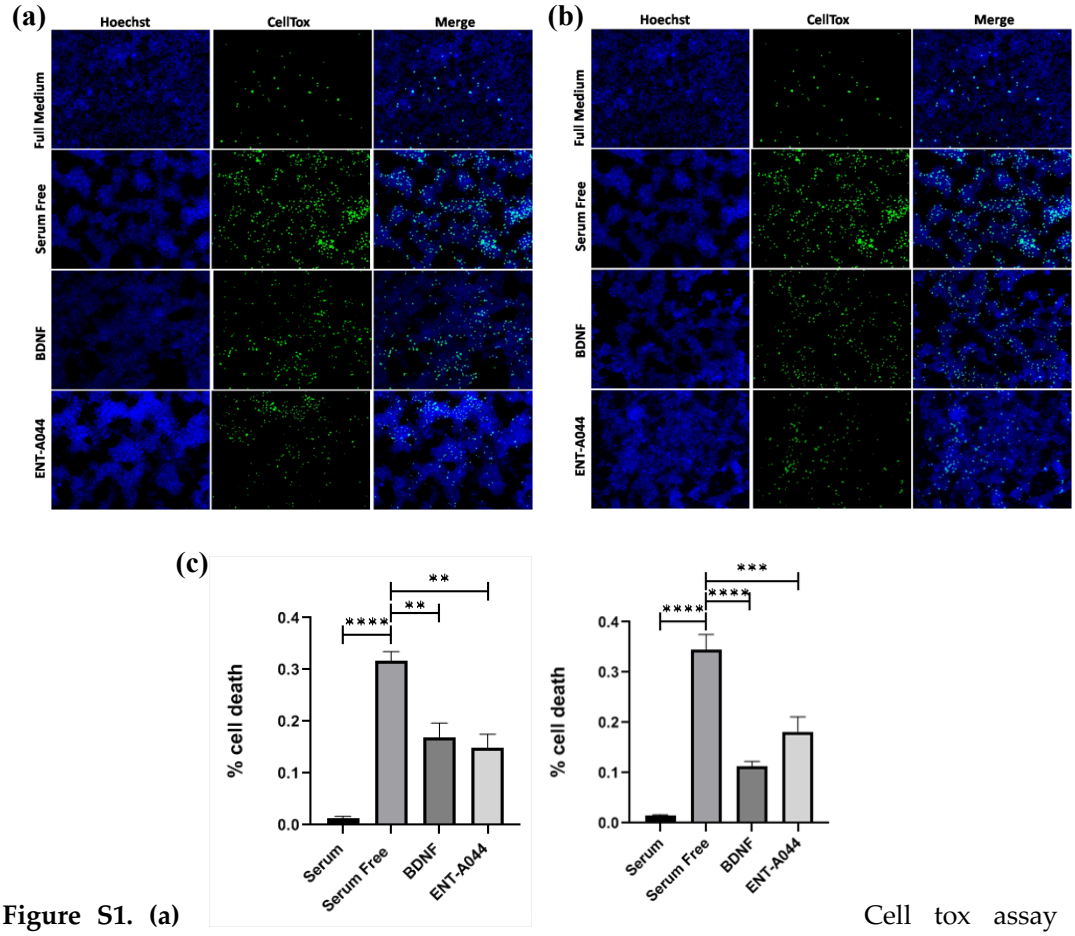

Figure S1. (a) Cell tox assay on transiently transfected HEK293T cells with TrkB plasmid, after 48 hrs and treatments with the tested compound ENT-A044 (500nM). **(b)** Cell tox assay on transiently transfected HEK293T cells with TrkB and p75NTR plasmids, after 48 hrs and treatments with the tested compound ENT-A044 (500nM). **(c)** Quantification of cell tox+ cells (green)/Hoechst+ cells (blue), one way ANOVA, * $p < 0,05$, mean±SEM of triplicate measurements.

2. **ENT-A044 has no significant effects on p7 hippocampal NSCs after 24h treatments.**

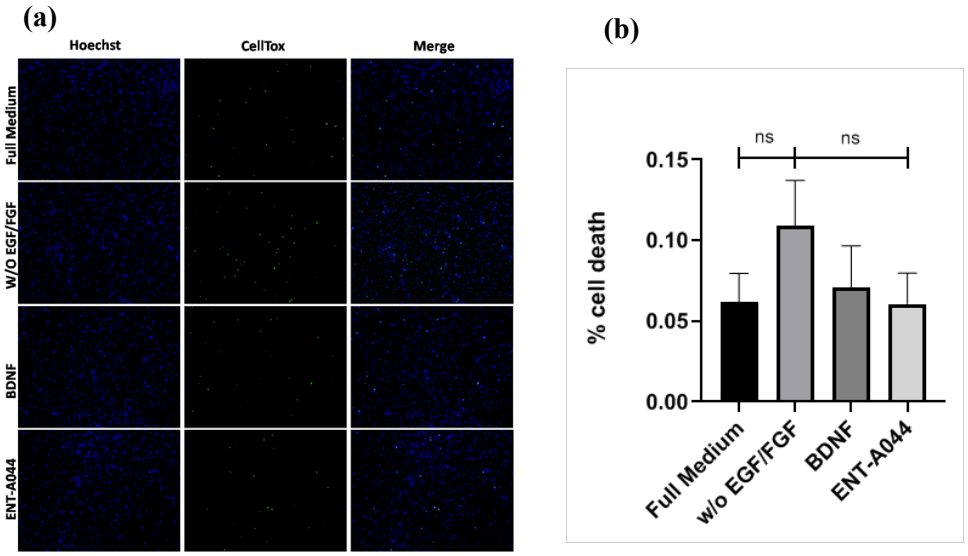

Figure S2. (a) Cell tox assay on p7 mouse hippocampal NSCs after 24 hrs and treatments with the tested compound ENT-A044 (500nM). **(b)** Quantification of cell tox+ cells (green)/Hoechst+ cells (blue), one-way ANOVA, ns: no significant, mean±SEM of triplicate measurements.

3. **p75NTR and TrkB receptor expression by p7 mouse hippocampal NSCs and human iPSCs – derived NPCs**

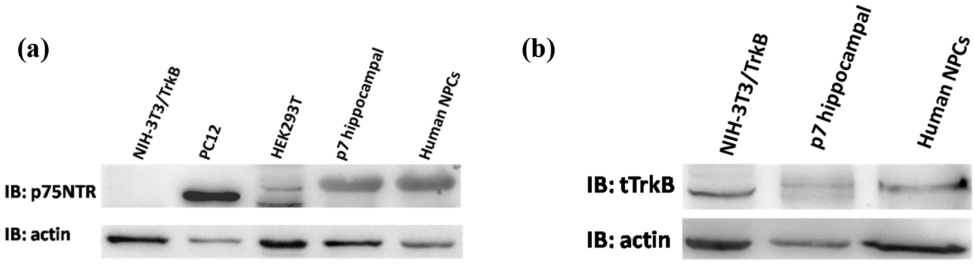

Figure S3. (a) Western blot analysis on lysates from p7 mouse hippocampal NSCs for the detection of p75NTR and TrkB expression. **(b)** Western blot analysis on lysates from NPC that were generated by human induced pluripotent stem cells (hiPSC), for the detection of p75NTR and TrkB expression. PC12 cells and stable transfected NIH-3T3 cells were used like controls for p75NTR and TrkB expression.