

Figure legends for the Supplemental materials

Fig. S1. Specificity of the γ 1-syntrophin antibody. **a** The SH-SY5Y cell lysates were analysed by Western blotting with anti- γ 1-syntrophin (left panel) or anti- γ 1-syntrophin antibodies pretreated with GST- γ 1PDZ fusion protein 1 h prior (right panel). β -Actin was detected to control the amount of protein loaded in each lane of the gel. **b** Quantification of data illustrated in (a), for the amounts of γ 1-syntrophin compared control SH-SY5Y cells.

Fig. S2. Expression of α - and γ -enolase in SH-SY5Y cells. **a** Flow cytometric analysis of SH-SY5Y cells of α -enolase (thick solid line) and γ -enolase expression (thin solid line). Broken thin line represents an isotype control. **b** Quantitative data are means \pm s.d. of three independent experiments. ($p < 0.0002$, as indicated).

Fig. S3. Cathepsin X activity in stably transfected SH-SY5Y cells. Up-regulation of cathepsin X activity in cathepsin-X-overexpressing SH-SY5Y cells was confirmed with cathepsin-X-specific substrate Abz-Phe-Glu-Lys(Dnp)-OH. ($p < 0.005$, as indicated).

Fig. S4. PDZ domain of γ 1-syntrophin binding to preserved C-terminal peptide of γ -enolase. The K_d was calculated from the Schatchard plot as $24.3 \mu\text{M}$.

Fig. S5. γ 1-Syntrophin protein level in transiently transfected SH-SY5Y cells. **a**, **b** Protein levels of γ 1-syntrophin in SH-SY5Y cells transfected with StealthTM RNAi/ γ 1-Syn 24 h and 48 h after transfection, as determined by flow cytometry (**a**) and Western blotting (**b**). **c** Differential interference contrast (DIC) and γ 1-syntrophin staining of non-transfected SH-SY5Y cells (control) and cells transfected with StealthTM RNAi/ γ 1-Syn. Scale bars = $10 \mu\text{m}$. **d** The relative localization area of immuno-labeled γ 1-syntrophin was analyzed for several controls and transfected SH-SY5Y cells (right panels). Data are means \pm s.d. ($p < 0.0001$; as indicated).

Fig. S1.

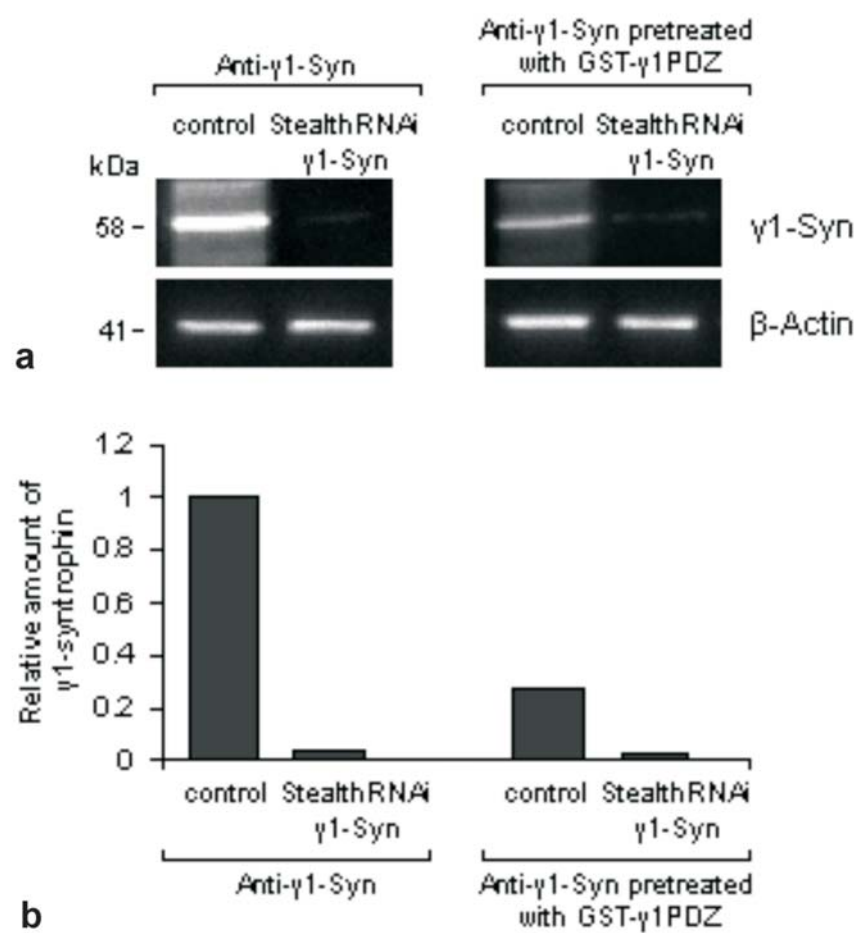


Fig. S2.

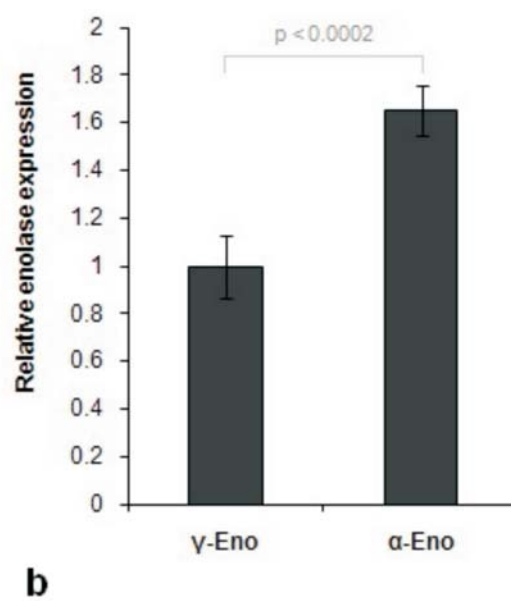
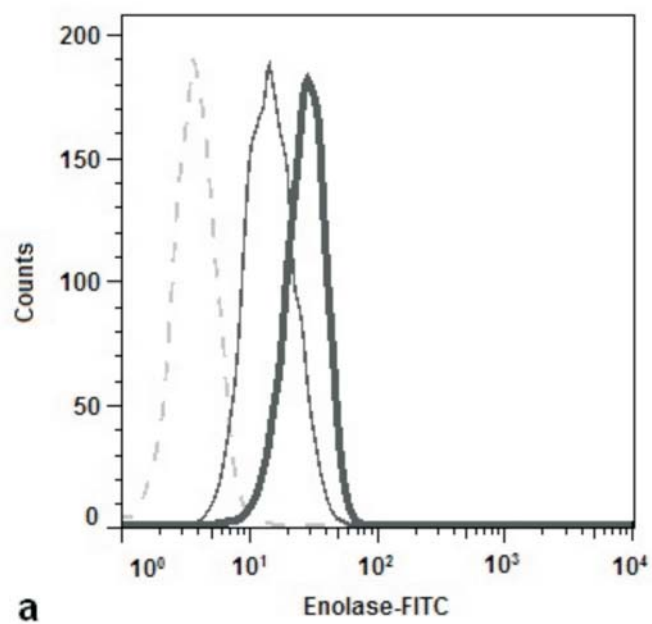


Fig. S3.

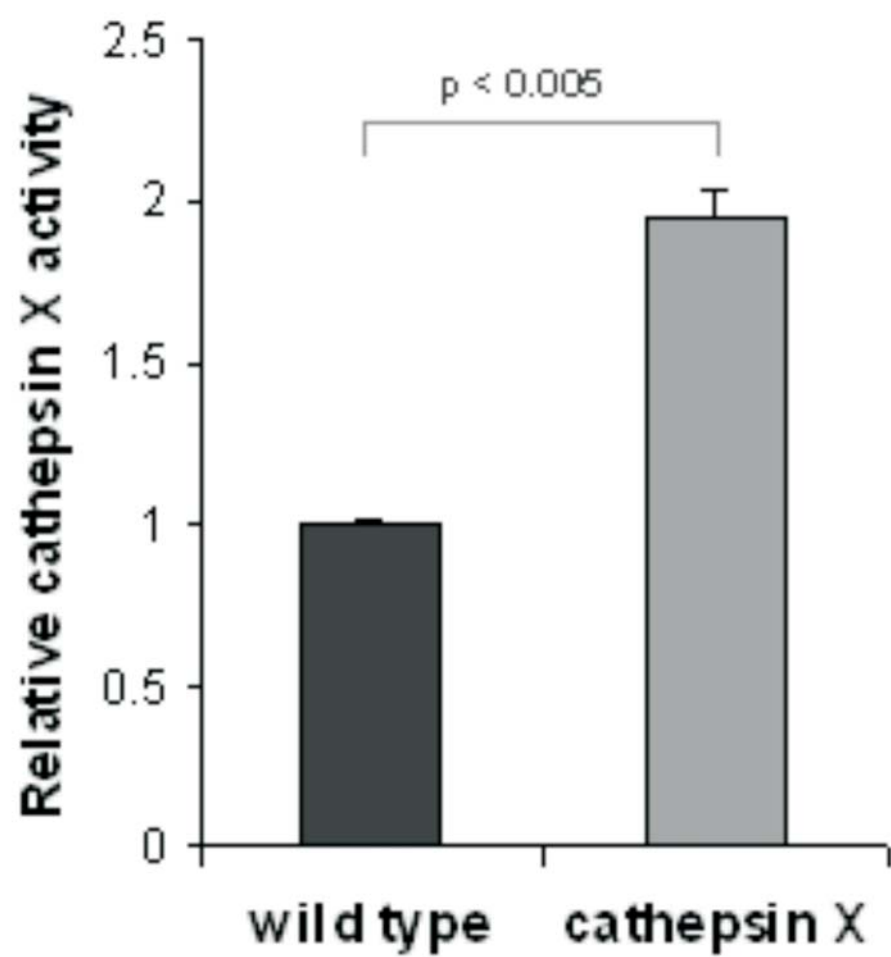


Fig. S4.

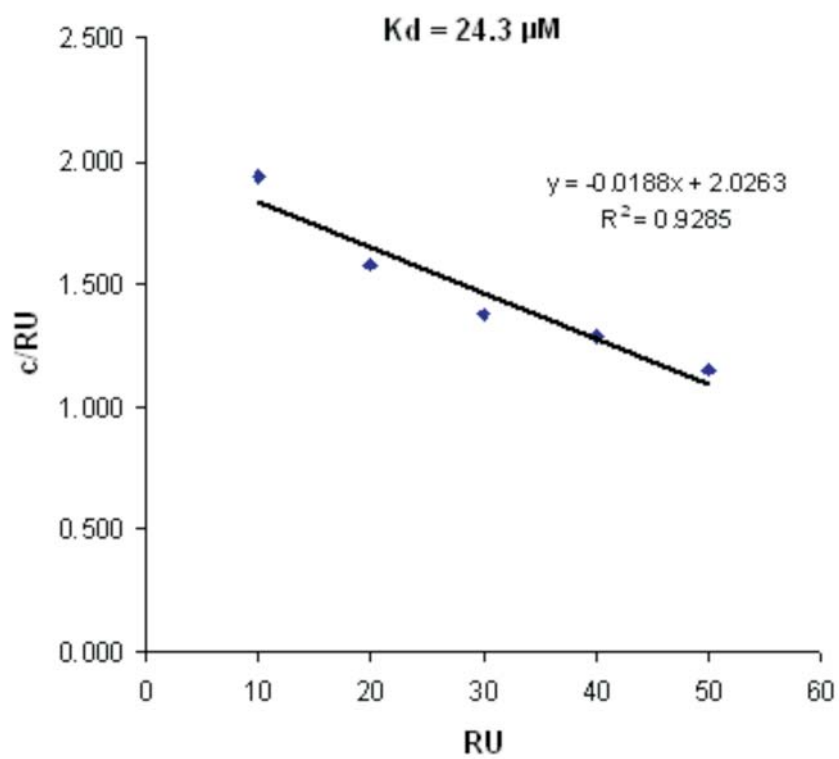


Fig. S5.

