


Figure 1 SM: pH 3.0-10.0 Coomassie stained two-dimensional gels. Proteomic maps of SaOS-2 cells under control conditionsDMSO (A) or treated with $25 \mu \mathrm{M}$ SI83 for 3 hours (B). Representative images from a triplicate set are shown. Proteins differentially expressed are circled and indicated by Swiss-Prot code.



Figure 2 SM: TEM observation of SI-83-treated OS cells. SaOS-2 cells cultured in the presence of DMSO (A, control) or $25 \mu \mathrm{M} \mathrm{SI}-83$ for 3 hours (B). A) Control cells showed a good state of health: an euchromatic nucleus ( $N$ ) and a cytoplasm abundant in endoplasmic rough reticulum (RER) and mitochondria (M). B)SI-83-treated cells showed evident signs of suffering: the nucleus became pyknotic ( pN ) and large vacuoles (V) were present in the cytoplasm. Plasma membrane presents numerous protrusions (arrows). Bar $3 \mu \mathrm{~m}$. TEM sections of osteoblasts cultured in presence of DMSO (C) or $25 \mu \mathrm{M}$ Si83 for 3 hours (D). In panel C, the cells highlight normal ultrastructure at nuclear and cytoplasmic level, nucleus (N). Panel D shows an osteoblast (arrow) with a good state of health and others cells with different signs of cellular suffering: pyknotic nucleus (pN), plasma membrane protrusions (P). Bar $3 \mu \mathrm{~m}$.


Figure 3-SM Quantification of phosphorylated AKT (pAKT) and phosphorylated ERK1/2 (pERK1/2). SaOS-2 cells were treated with SI $-8325 \mu \mathrm{M}$ for the indicated times. SI-83 did not affect the pAKT levels, while ERK 1/2 activation was transiently inhibited (time 0 and 15 minutes) Bars, SD. *p<0.05.

