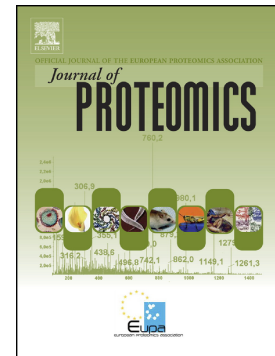


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Potential mechanisms of calcium dependent regulation of the mammalian cell cycle revealed by comprehensive unbiased label-free nLC-MS/MS quantitative proteomics

Anna Kwasnik¹, Alex von Kriegsheim^{1,2,3}, Andrew Irving⁴, Stephen R Pennington^{*1}

Highlights:

- Global proteomic effect of Ca²⁺ influx inhibition on G₁ phase was examined
- A total 182 differentially expressed proteins were identified with diverse functions
- Cell proliferation, cell morphology, and cellular assembly and organisation were altered by the inhibition of Ca²⁺ influx.
- Potential mechanism of Ca²⁺ dependent regulation of cell cycle was proposed
- Selected protein expression changes and biological processes were validated.

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