Species	Accessions ID	Accession name	Area of origin
Sansevieria concinna	S-CNR-014	*Sansevieria concinna*	Mozambique
Sansevieria fasciata x forskaoliana	S-CNR-074	*Sansevieria* hybrid	USA
Sansevieria forskaoliana	S-CNR-036	*Sansevieria forskaoliana*	South Yemen
Sansevieria elliptica	S-CNR-103	*Sansevieria elliptica*	Kenya
Sansevieria parva	S-CNR-054	*Sansevieria parva*	Kenya
Sansevieria pearsonii	S-CNR-058	*Sansevieria pearsonii*	Southern Africa
Sansevieria caulescens	S-CNR-088	*Sansevieria caulescens*	Kenya

Supplementary Table S1. List of seven *Sansevieria* accessions used for the regeneration of somatic embryos *in vitro*.

Figure S1: Flow cytometry evaluation of three extraction buffers for Sansevieria nuclei isolation in suspension from 2 mg leaf tissue. A synthetic standard (STD) was added to samples to secure instrumental efficiency. In panel A), B) and C) are presented histograms after leaf nuclei isolation with Otto buffer, Catalano buffer and LB01 buffer, respectively. LB01 outperformed other buffers in terms of nuclei yield and staining strenght, as visible in C).

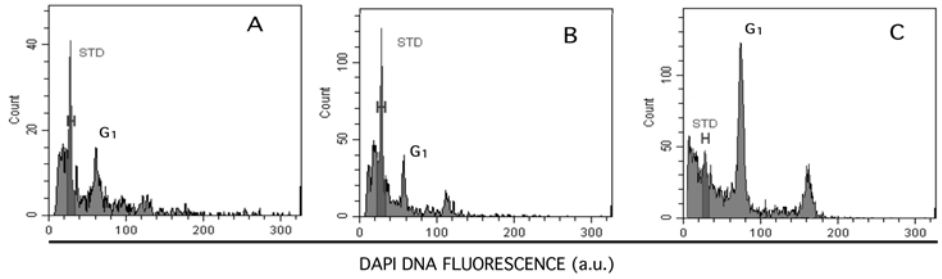

Figure S2: An example of "clearing up" FCM analysis from debris and unnecessary particles. In panel A) a cell cycle analysis has shown were STD refers to polystyrene beads supplemented to a suspension of leaf nuclei (see M&M). A large background of low intensity signals show up in the left side down of the histogram, interfering with data analysis. In B) a dot plot of DNA fluorescence vrs particle "shape" has shown. This data representation clearly indicates several sub-populations in the sample, allowing to phase out debris and other remnants not useful for DNA fluorescence evaluation. In panel C) a more defined DNA histogram is presented after selecting a proper Region of Interest (e.g.P3). The a sharp STD fluorescence peak ensure for a perfect performance of the flow cytometer.