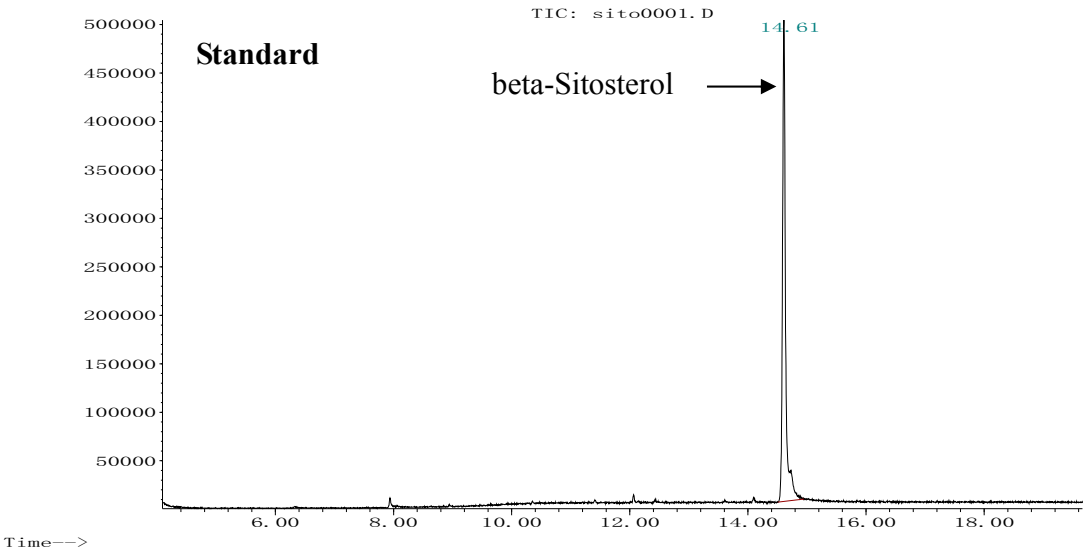
Supplementary Figure Legends:

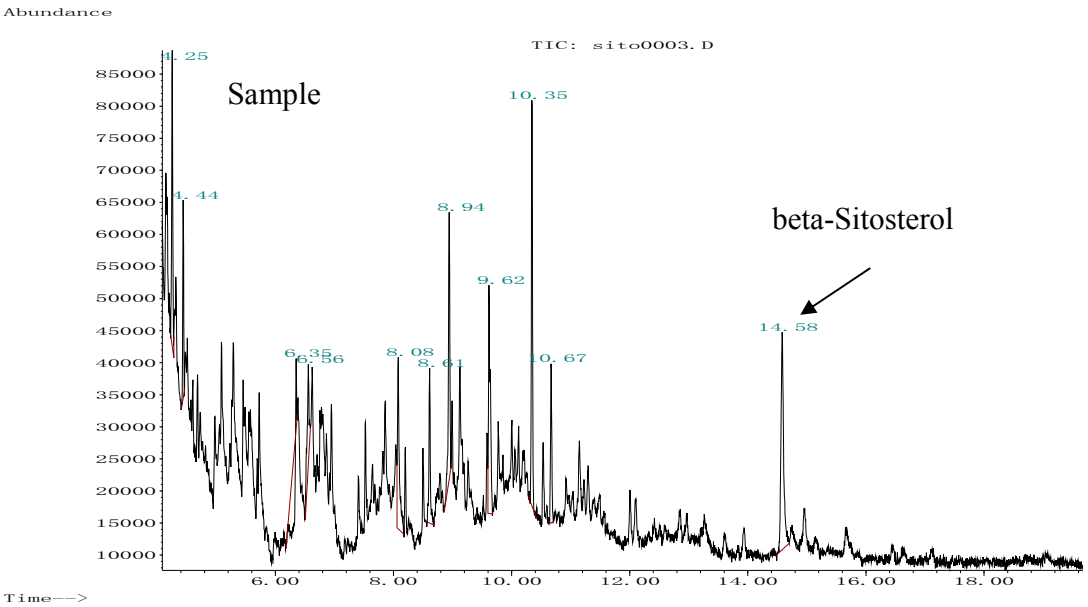
Supplementary Figure S1. GC-MS chromatogram for extract of *Diascorea alata* and structural identifications and quantitative analyses of phytosterol derivatives are presented. The peaks were identified by their retention times using standards. The areas under the peaks were measured with an integrator. Data were acquired and processed with Chemstation software. The upper and middle figures indicate the retention time of standard β-sitosterol and sample compounds in this determination was 14.61 minutes. The lower figure shows the chromatogram and structure of β-sitosterol.

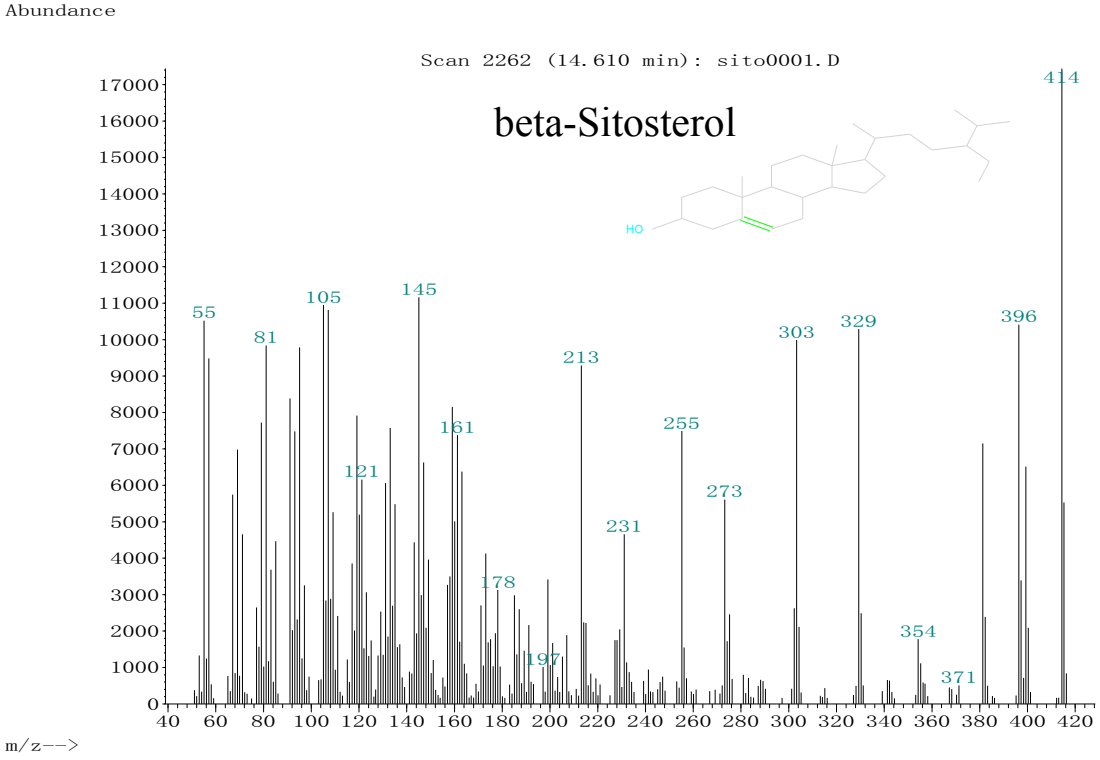
Supplementary Figure S2. Structural identification was confirmed by comparison of the retention times and mass spectra obtained for *Diascorea alata* (upper figure) and those of derivative sterol standards of β-sitosterol, γ-sitosterol, and 22-23-dihydro- stigmasterol.

Supplementary Figure S3. Flow chart for recruiting postmenopausal women in this study.

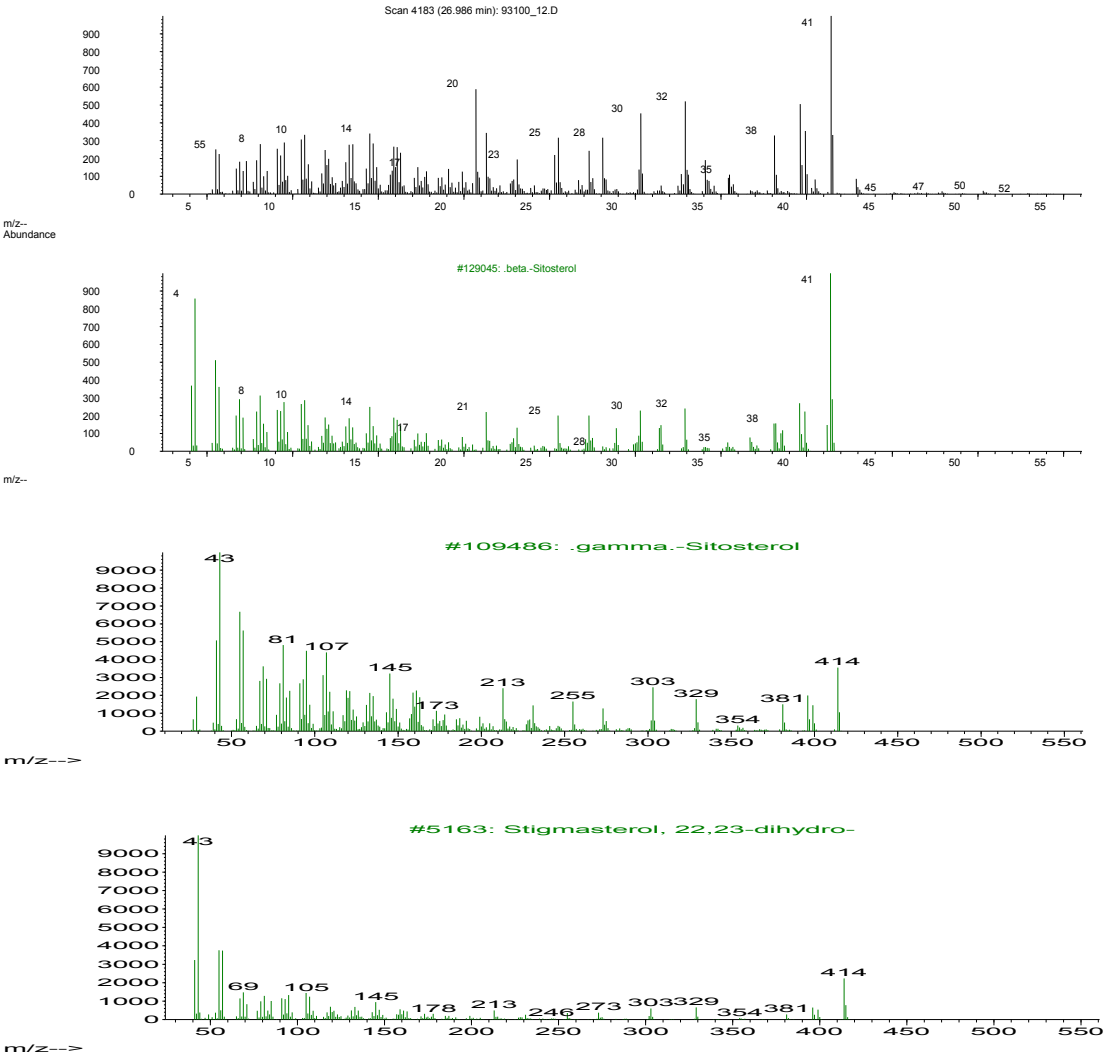
Supplementary figure S1



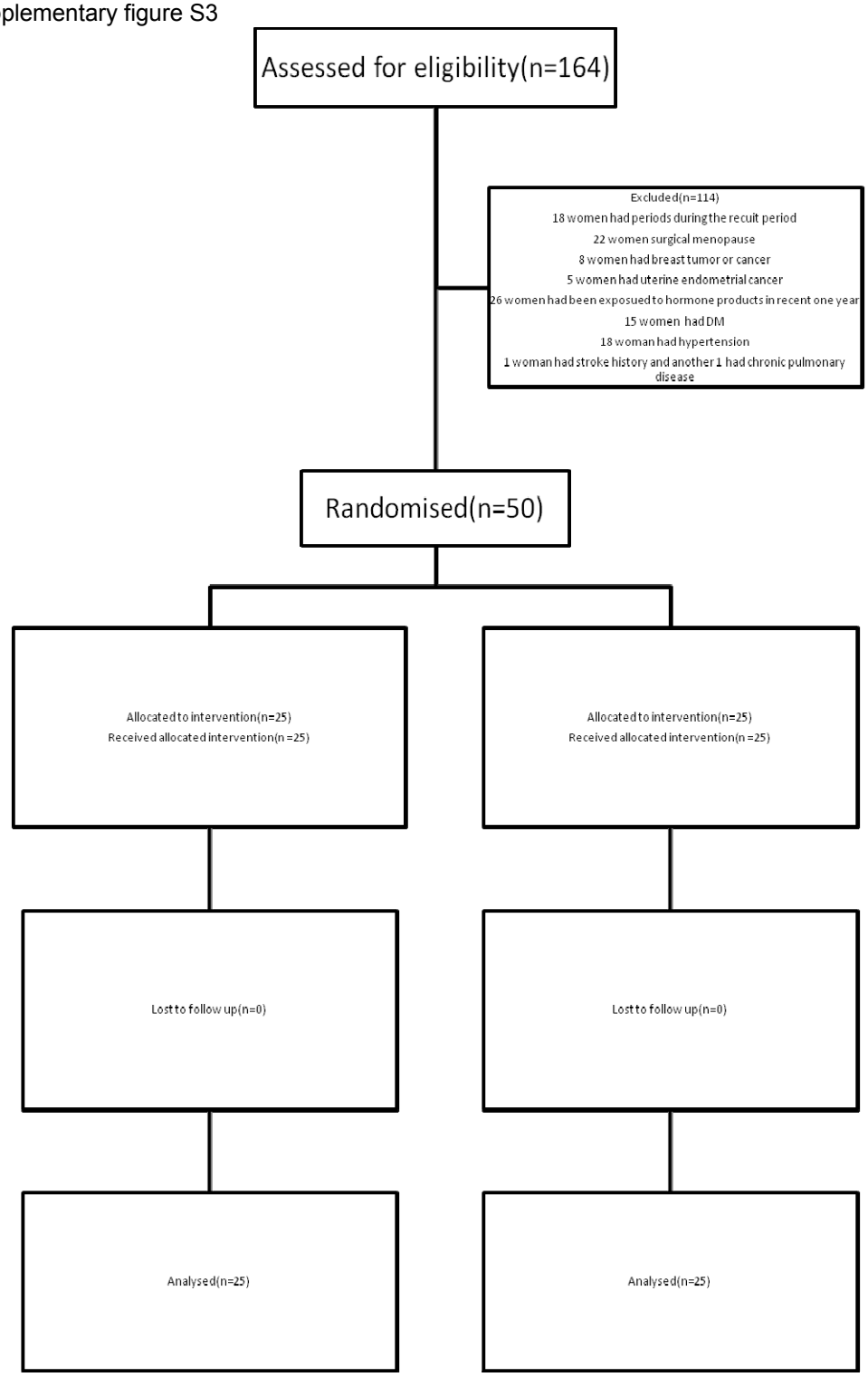



Abundance
Scan 2262 (14.610 min): sito0001.D
beta-Sitosterol
HO
414
396
329
303
213
145
105
81
55
255
273
161
121
231
178
354
197
371
m/z-->

Supplementary figure S2



Supplementary figure S3



Supplementary Table S1. The detection of retained heavy metals in *Diascorea* used.

Heavy metals	(ppm)*	Unpeeled (ppm)	Peeled (ppm)
Pb***	<20ppm	ND**	ND
Cu	<100ppm	8.943ppm	6.04ppm
Cd	<1ppm	0.248ppm	ND
Hg	<0.5ppm	ND	ND
As	<5ppm	ND	ND

*: Tolerance level of heavy metal contents.
**: Non-detectable.
***: Pb, Cu, Cd, Hg, and As: lead, copper, cadmium, mercury, and arsenic.