

# Quercetagetin and patuletin: antiproliferative, necrotic and apoptotic activity in tumor cell lines

Jesús J. Alvarado-Sansininea <sup>1</sup>, Luis Sánchez-Sánchez <sup>2</sup>, Hugo López-Muñoz <sup>2</sup>, María L. Escobar <sup>3</sup>, Fernando Flores-Guzmán <sup>2</sup>, Rosario Tavera-Hernández <sup>1</sup> and, Manuel Jiménez-Estrada <sup>1,\*</sup>

<sup>1</sup> Laboratorio 2-10. Departamento de Productos Naturales, Instituto de Química, Universidad Nacional Autónoma de México, México.; manueljemex@gmail.com

<sup>2</sup> Laboratorio 6 3er piso. UMIEZ, Facultad de Estudios Superiores Zaragoza, Universidad Nacional Autónoma de México, México.; luisss@unam.mx

<sup>3</sup> Laboratorio de Microscopía Electrónica, Departamento de Biología Celular, Facultad de Ciencias, Universidad Nacional Autónoma de México, México.

## Content

NMR analysis .....	2
HR-DART-MS analysis.....	4
Dot plot Caspase-8.....	5
Dot plot Caspase-9.....	6

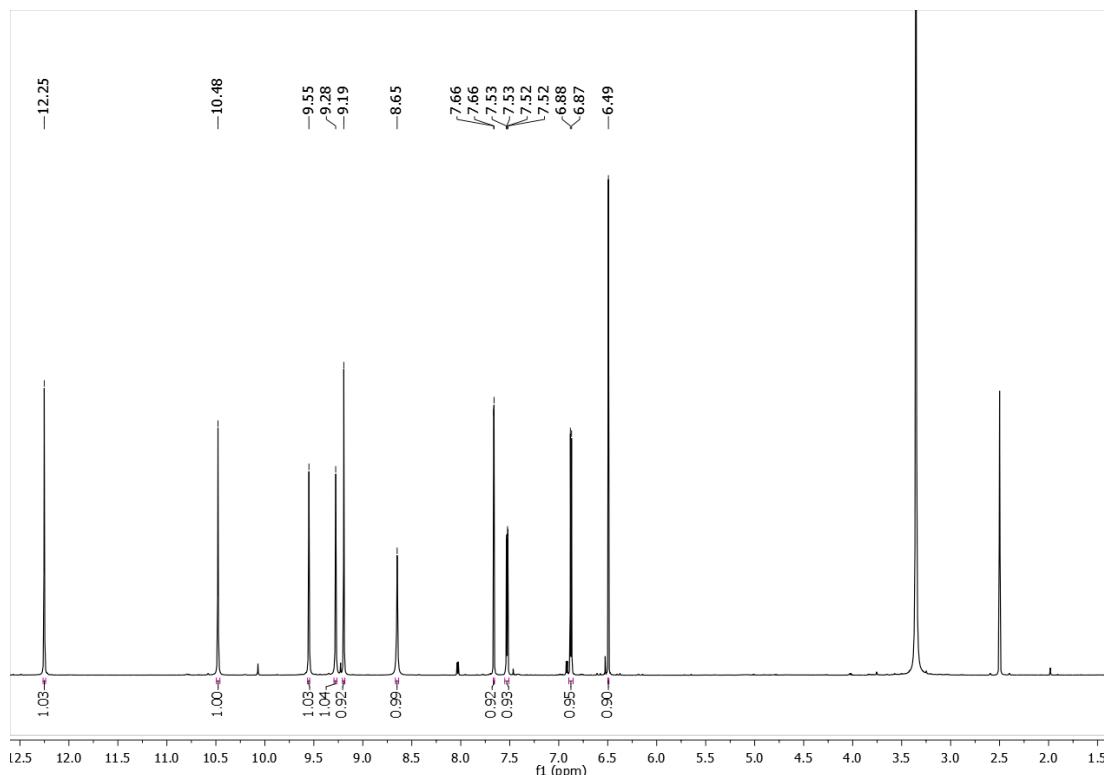
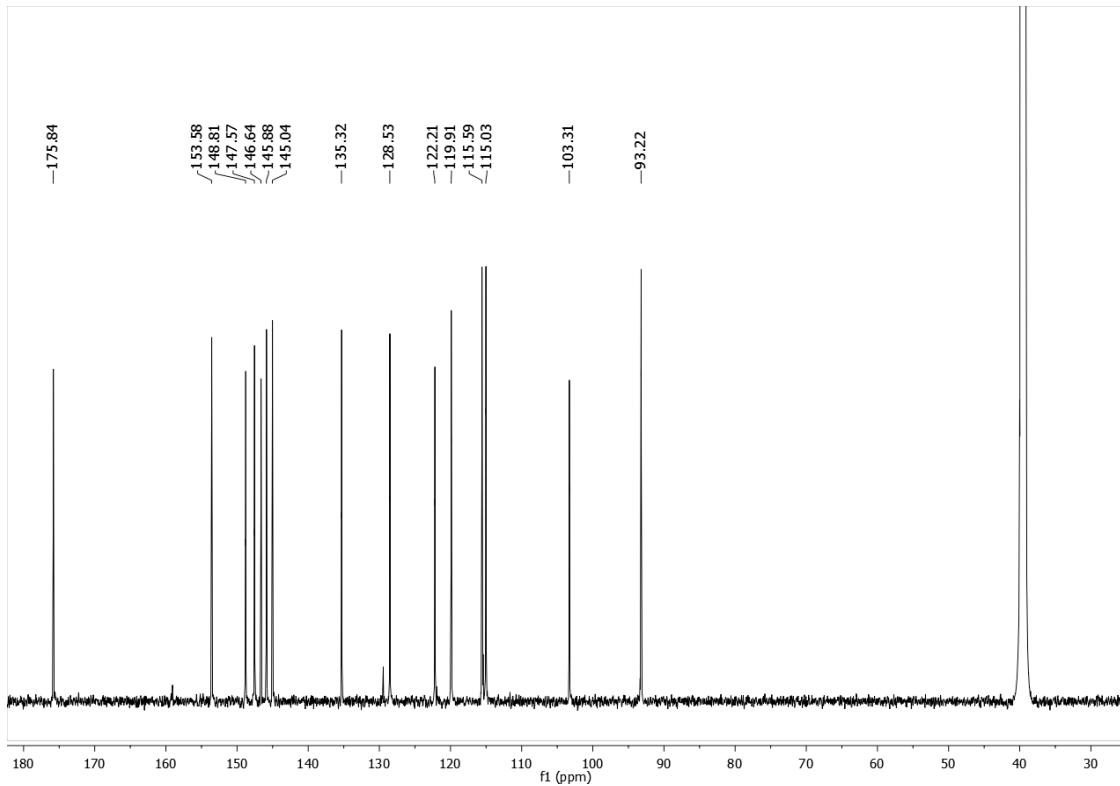
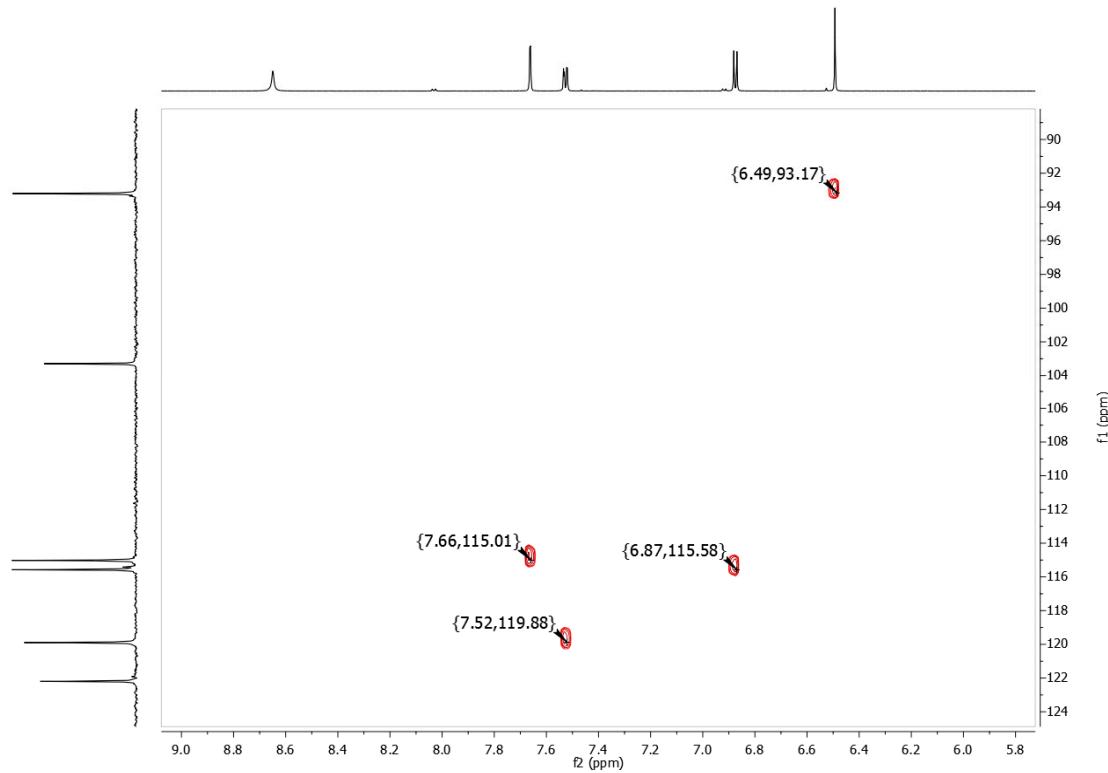


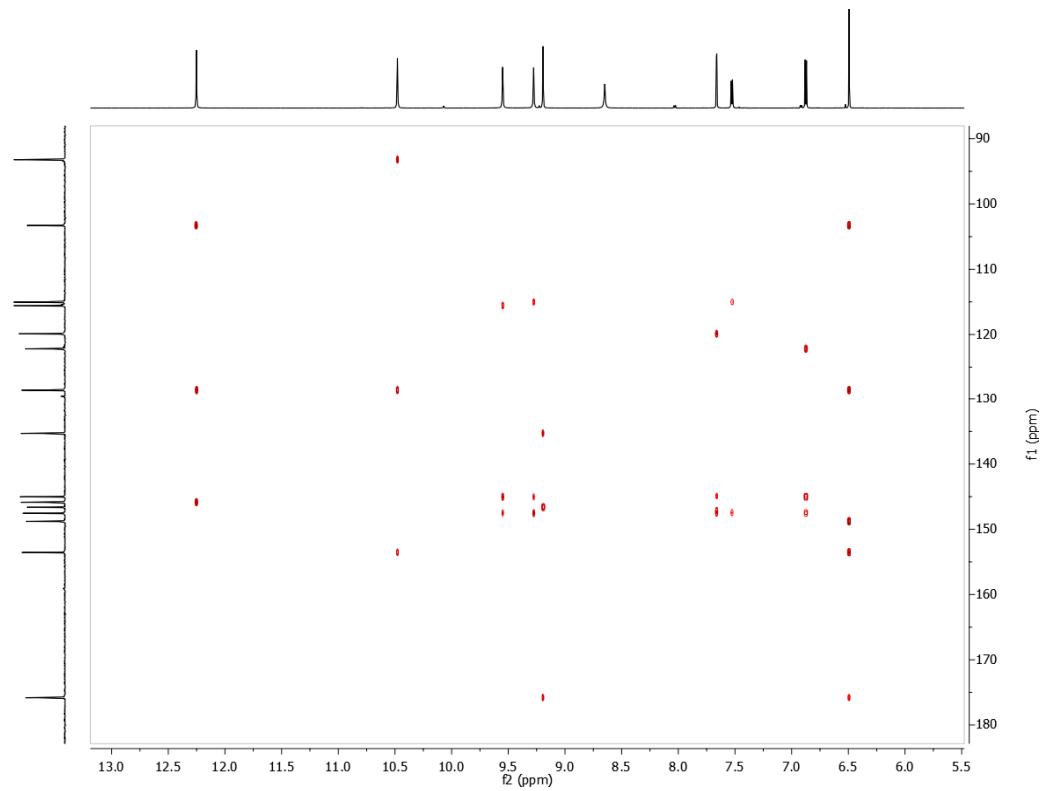
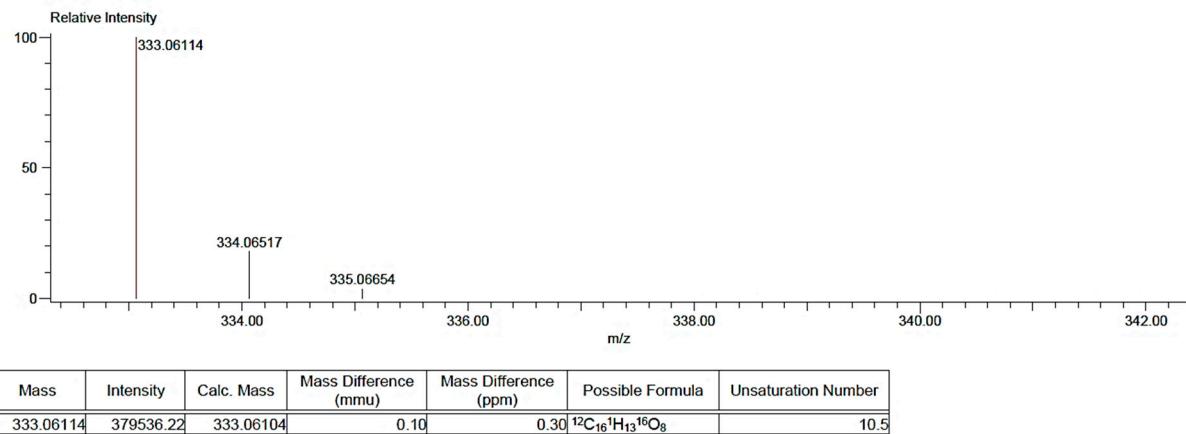
Figure S1. <sup>1</sup>H Spectrum of quercetagetin

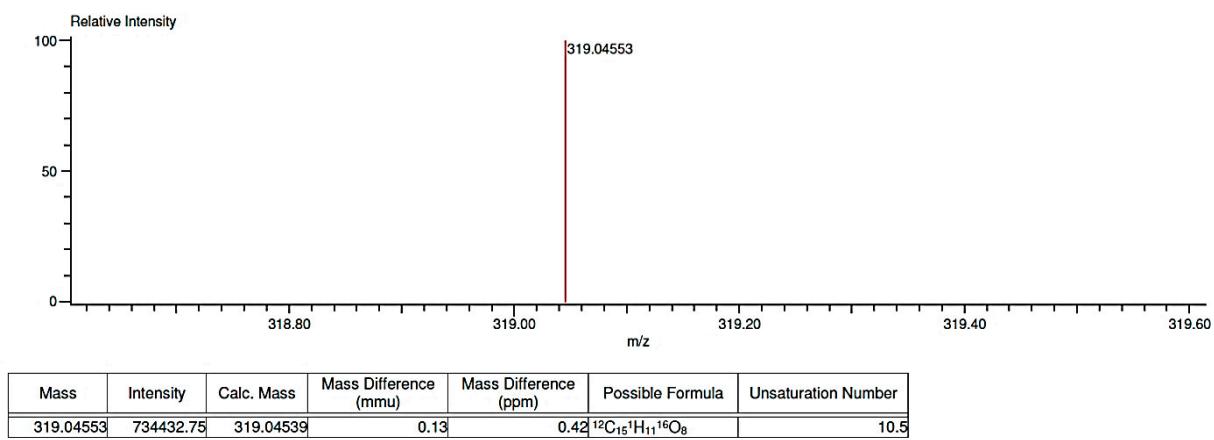


**Figure S2.**  $^{13}\text{C}$  Spectrum of quercetagetin



**Figure S3.** HSQC Spectrum of quercetagetin

**Figure S4.** HMBC Spectrum of quercetagetin**Figure S5.** HR-DART-MS positive ion mode of patuletin



**Figure S6.** HR-DART-MS positive ion mode of quercetagetin

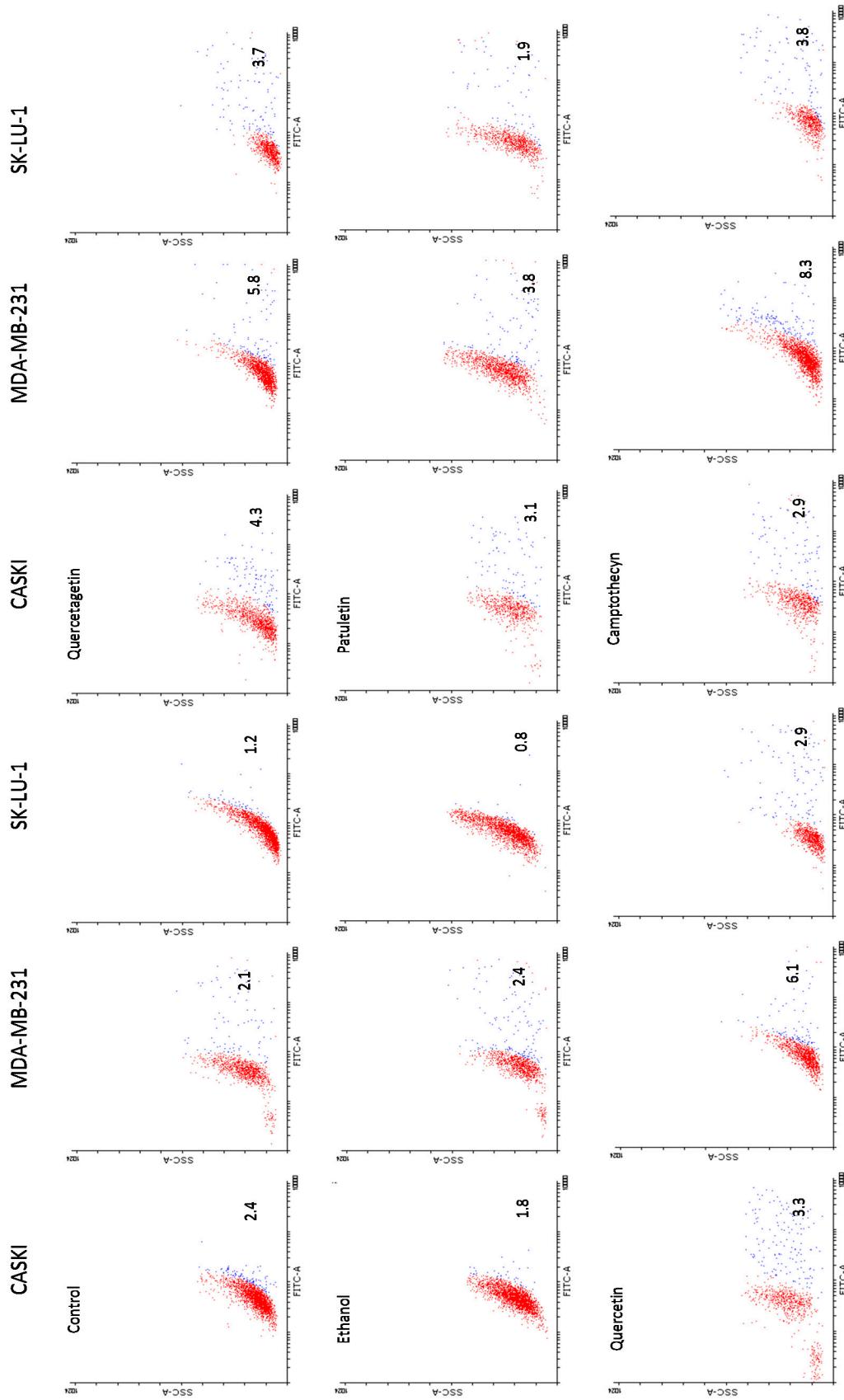


Figure S7. Detection of active caspase-8 in CaSkii, MDA-MB-231 and SK-Lu-1 cell cultures exposed to quercetin, quercetagetin and patuletin at the aforementioned IC<sub>50</sub> values.

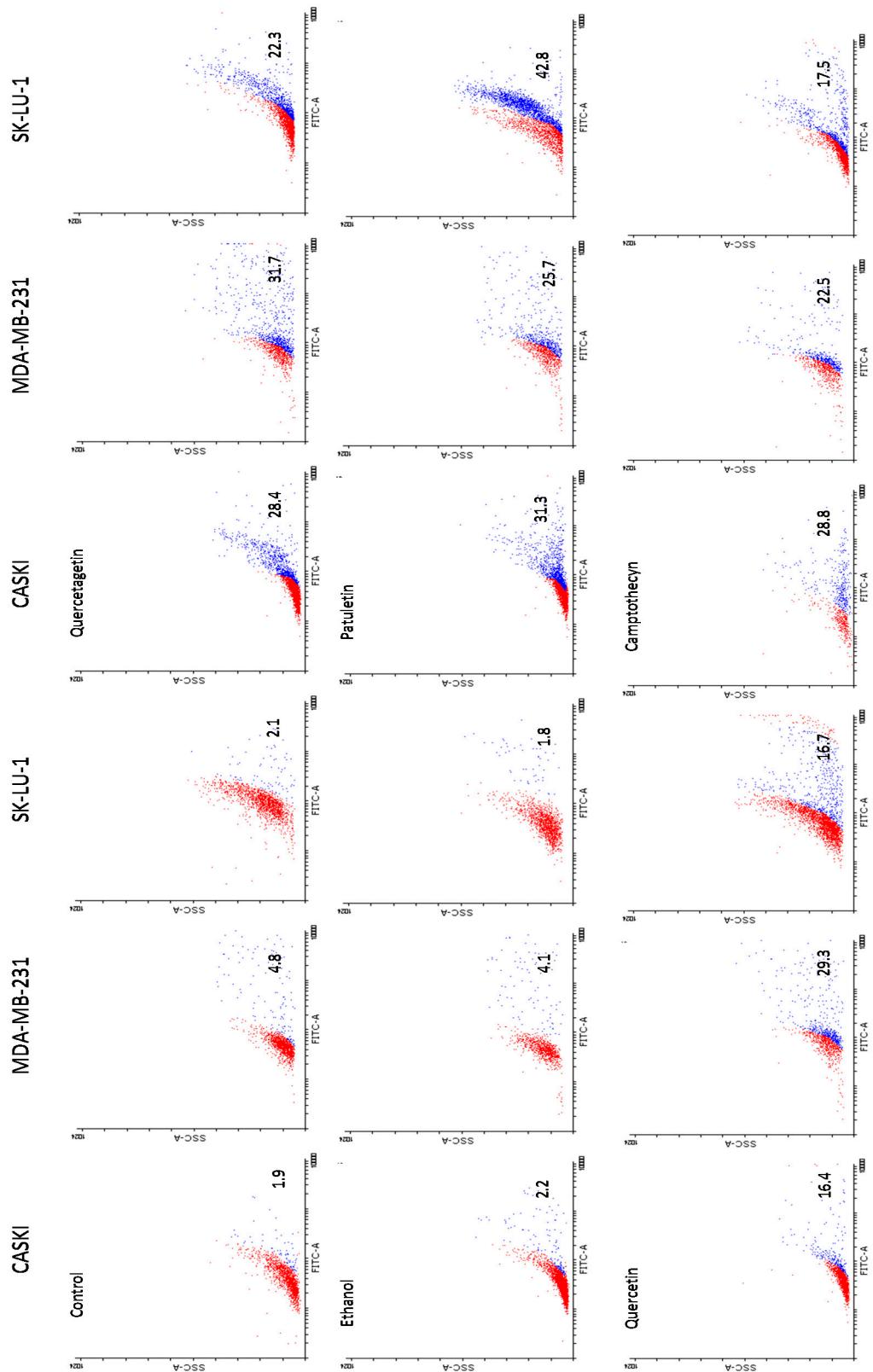


Figure S8. Detection of active caspase-9 in CaSkI, MDA-MB-231 and SK-Lu-1 cell cultures exposed to quercetin, quercetagetin and patuletin at the aforementioned IC50 value<sup>6</sup>