

Table S1:Marinated sirloin recipes

Marinade ingredients	UM	Marinade 1 (M <sub>1</sub> ) control	Marinade 2 (M <sub>2</sub> )	Marinade 3 (M <sub>3</sub> )	Marinade 4 (M <sub>4</sub> )	Marinade 5 (M <sub>5</sub> )	Marinade 6 (M <sub>6</sub> )
Rosemary	kg/kg		0.014				
Olive oil	L/kg		0.048				
Oregano	kg/kg			0.014			
Pumpkin oil	L/kg			0.048			
Thyme	kg/kg				0.014		
Sunflower oil	L/kg				0.048		
Basil	kg/kg					0.014	
Walnut oil	L/kg					0.048	
Ginger	kg/kg						0.014
Sesame oil	L/kg						0.048
Salt	%	2	2	2	2	2	2
Black ground pepper	%	0.50	0.50	0.50	0.50	0.50	0.50

Table S2: Phenolics profile of marinated samples

Compound	M <sub>1</sub> 24h	M <sub>1</sub> 72h	M <sub>1</sub> 120h	M <sub>2</sub> 24h	M <sub>2</sub> 72h	M <sub>2</sub> 120h	M <sub>3</sub> 24h	M <sub>3</sub> 72h	M <sub>3</sub> 120h	M <sub>4</sub> 24h	M <sub>4</sub> 72h	M <sub>4</sub> 120h	M <sub>5</sub> 24h	M <sub>5</sub> 72h	M <sub>6</sub> 120h	M <sub>6</sub> 24h	M <sub>6</sub> 72h	M <sub>6</sub> 120h
Flavones																		
HLG	n.d	n.d	n.d	21.20±0.23 <sup>a</sup>	21.33±0.45 <sup>a</sup>	21.45±0.78 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
NP	n.d	n.d	n.d	48.18±0.88 <sup>c</sup>	35.23±0.33 <sup>b</sup>	20.47±0.67 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
LG	n.d	n.d	n.d	n.d	n.d	n.d	30.93±0.4 <sup>ab</sup>	29.03±0.33 <sup>a</sup>	29.01±0.7 <sup>a</sup>	30.05±0.8 <sup>ab</sup>	29.09±0.77 <sup>a</sup>	29.04±0.37 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d
PL	n.d	n.d	n.d	30.64±0.78 <sup>b</sup>	29.32±0.44 <sup>ab</sup>	28.46±0.88 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
LAG	n.d	n.d	n.d	23.26±0.99 <sup>c</sup>	22.27±0.77 <sup>ab</sup>	21.99±0.85 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
LA	n.d	n.d	n.d	n.d	n.d	n.d	4.99±0.77 <sup>a</sup>	4.56±0.99 <sup>a</sup>	5.10±0.89 <sup>a</sup>	15.73±0.88 <sup>b</sup>	14.22±0.76 <sup>a</sup>	15.05 ±0.98 <sup>ab</sup>	n.d	n.d	n.d	n.d	n.d	n.d
CRM	n.d	n.d	n.d	59.61±0.89 <sup>c</sup>	53.76±1.23 <sup>b</sup>	51.82±1.67 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
HP	n.d	n.d	n.d	n.d	n.d	n.d	21.83±0.89 <sup>c</sup>	19.23±0.77 <sup>ab</sup>	18.76±0.8 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
AP	n.d	n.d	n.d	n.d	n.d	n.d	16.87±0.89 <sup>c</sup>	11.77±0.85 <sup>ab</sup>	10.13±1.1 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
LG2	n.d	n.d	n.d	n.d	n.d	n.d	9.40±0.56 <sup>ab</sup>	8.81±0.45 <sup>a</sup>	8.98±0.23 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
LGRS	n.d	n.d	n.d	62.04±1.23 <sup>c</sup>	55.33±0.99 <sup>b</sup>	53.02±1.35 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d			
Hydroxycinnamic acids																		
DIFQ	22.44±1.09 <sup>c</sup>	20.74±0.78 <sup>ab</sup>	19.17±0.56 <sup>a</sup>	n.d	n.d	n.d	12.90±0.23 <sup>b</sup>	11.99±0.56 <sup>a</sup>	11.22±0.8 <sup>a</sup>	32.13±0.78 <sup>b</sup>	31.09±0.59 <sup>a</sup>	30.70±1.01 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d
CHG	n.d	n.d	n.d	n.d	n.d	n.d	17.22±0.49 <sup>ab</sup>	16.99±0.44 <sup>a</sup>	16.27±0.7 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
RSM	n.d	n.d	n.d	n.d	n.d	n.d	4.73±0.11 <sup>ab</sup>	4.21±0.67 <sup>a</sup>	3.91±0.55 <sup>a</sup>	9.32±0.34 <sup>b</sup>	7.01±0.11 <sup>a</sup>	7.98±0.22 <sup>a</sup>	27.73±1.23 <sup>c</sup>	25.77±0.67 <sup>ab</sup>	23.95±0.88 <sup>a</sup>	n.d	n.d	n.d
CHA	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	17.42±0.55 <sup>ab</sup>	16.99±0.78 <sup>a</sup>	16.53±0.88 <sup>a</sup>	n.d	n.d	n.d
Phenolic terpene																		
CRN	n.d	n.d	n.d	52.30±1.56 <sup>b</sup>	49.52±1.09 <sup>a</sup>	50.38±0.99 <sup>a</sup>	39.99±0.56 <sup>c</sup>	36.77±0.66 <sup>b</sup>	33.86±0.2 <sup>a</sup>	n.d	n.d	n.d	30.89±0.33 <sup>b</sup>	31.53±0.55 <sup>bc</sup>	27.91±0.59 <sup>a</sup>	n.d	n.d	n.d
CAR	n.d	n.d	n.d	67.59±0.64 <sup>a</sup>	77.11±0.84 <sup>b</sup>	88.82±0.87 <sup>c</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
phenolic acids																		
DHB	37.84±1.23 <sup>c</sup>	32.84±0.98 <sup>b</sup>	2946±0.88 <sup>a</sup>	9917±1.78 <sup>c</sup>	6703±1.23 <sup>b</sup>	54.08±0.99 <sup>a</sup>	49.27±0.34 <sup>c</sup>	35.09±1.65 <sup>b</sup>	19.35±1.9 <sup>a</sup>	41.18±1.02 <sup>c</sup>	37.09±1.86 <sup>b</sup>	24.04±0.77 <sup>a</sup>	71.337±0.6 <sup>c</sup>	55.73±0.62 <sup>a</sup>	58.25±0.27 <sup>b</sup>	18.93±0.29 <sup>a</sup>	37.67±1.77 <sup>b</sup>	42.37±0.89 <sup>c</sup>
HB	184.94±1.0 <sup>c</sup>	181.08±1.0 <sup>b</sup>	174.83±1.0 <sup>c</sup>	205.82±0.98 <sup>a</sup>	241.09±0.65 <sup>b</sup>	248.17±0.88 <sup>c</sup>	201.06±0.67 <sup>a</sup>	237.99±0.62 <sup>b</sup>	261.2±0.85 <sup>c</sup>	248.59±0.63 <sup>a</sup>	255.94±0.38 <sup>b</sup>	257.276±0.39 <sup>b</sup> <sup>c</sup>	237.88±1.21 <sup>b</sup>	231.88±0.99 <sup>a</sup>	242.643±0.23 <sup>c</sup>	184.47±0.78 <sup>a</sup>	201.89±0.53 <sup>b</sup>	223.52±0.49 <sup>c</sup>
Tyrosol																		

HDT	n.d	n.d	n.d	9.71±0.59 <sup>ab</sup>	9.01±0.89 <sup>a</sup>	9.40±0.25 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
TYR	n.d	n.d	n.d	13.52±0.52 <sup>a</sup>	14.82±0.77 <sup>ab</sup>	15.85±0.59 <sup>b</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
OLEP	n.d	n.d	n.d	43.79±0.69 <sup>c</sup>	39.28±0.78 <sup>ab</sup>	38.83±0.31 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
Lignans																		
ISR	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	8.58±0.92 <sup>ab</sup>	7.54±0.83 <sup>a</sup>	7.09±0.33 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d
SES	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	27.91±0.63 <sup>a</sup>	27.32±0.72 <sup>a</sup>	27.44±0.27 <sup>a</sup>
Hydroxyphenylpropene																		
PRD		n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	36.83±1.23 <sup>ab</sup>	35.03±0.51 <sup>a</sup>	34.22±1.04 <sup>a</sup>
GNG		n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	23.15±0.79 <sup>ab</sup>	22.00±0.99 <sup>a</sup>	22.83±0.76 <sup>a</sup>
Hydroxybenzaldehyde																		
VAN		n.d	n.d	n.d	n.d	n.d	4.77±0.39 <sup>a</sup>	4.56±0.88 <sup>a</sup>	4.33±0.91 <sup>a</sup>	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d

Hydroxy-Luteolin-glucoside – HLG; Nepetrin: NP; Luteolin-glucuronide -LG; Plantaginin: PL; Luteolin-acetyl-glucuronide: LAG; Luteolin-glucoside: LA; Cirsimaritin: CRM; Homoplantaginin (Hispidulin-glucoside): HP; Apigenin-glucoside: AP; Luteolin-glucoside2:LG2; Luteolin-glucuronide (Rosemaryic acid): LGRS; Dicaffeoylquinic acid: DIFQ; Chlorogenic acid: CHG; Rosemaryic acid-RSM; Chicoric acid: CHA; Carnosol: CRN; Carnosic acid: CAR; Dihydroxybenzoic acid: DHB; Hydroxybenzoic acid: HB; Hydroxytyrosol: HDT; Tyrosol: TYR; Oleuropein derivative: OLEP; Isolariciresinol: ISR; Sesamin: SES; Paradol: PRD; Gingerol: GNG; Vanilin: VAN

Mean values of three different determinations followed by standard deviation; M<sub>1</sub> – sirloin marinated only with salt and pepper; M<sub>2</sub> – sirloin marinated with olive oil, rosemary, salt and pepper; M<sub>3</sub> – sirloin marinated with pumpkin oil, oregano, salt and pepper; M<sub>4</sub> – sirloin marinated with sunflower oil, thyme, salt and pepper; M<sub>5</sub>-sirloin marinated with walnut oil, basil, salt and pepper; M<sub>6</sub>-sirloin marinated with sesame oil, ginger, salt and pepper; Values not sharing the same small letter in a row indicate significant difference between the same sample at different moments: 24h, 72, 120h; n.d.–not detected

Table S3:Phenolics profile of cooked samples

Compound s µg/g	M <sub>1</sub> T 24h	M <sub>1</sub> T 72h	M <sub>1</sub> T 120h	M <sub>2</sub> T 24h	M <sub>2</sub> T 72h	M <sub>2</sub> T 120h	M <sub>3</sub> T 24h	M <sub>3</sub> T 72h	M <sub>3</sub> T 120h	M <sub>4</sub> T 24h	M <sub>4</sub> T 72h	M <sub>4</sub> T 120h	M <sub>5</sub> T 24h	M <sub>5</sub> T 72h	M <sub>6</sub> T 120h	M <sub>6</sub> T 24h	M <sub>6</sub> T 72h	M <sub>6</sub> T 120h
<i>Flavonoes</i>																		
HLG	n.d.	n.d.	n.d.	3.48±0.23 <sup>a</sup>	4.03±0.38 <sup>ab</sup>	5.08±0.43 <sup>c</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
NP	n.d.	n.d.	n.d.	14.25±0.47 <sup>a</sup>	15.78±0.76 <sup>b</sup>	17.88±0.88 <sup>c</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
LG	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	20.72±0.22 <sup>a</sup>	24.43±0.67 <sup>b</sup>	27.99±0.33 <sup>c</sup>	19.02±0.87 <sup>a</sup>	19.76±0.56 <sup>a</sup>	19.6±0.45 <sup>a</sup>				n.d.	n.d.	n.d.
PL	n.d.	n.d.	n.d.	11.93±0.77 <sup>a</sup>	12.1±0.36 <sup>ab</sup>	13.21±0.65 <sup>b</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
LAG	n.d.	n.d.	n.d.	7.75±0.12a	7.02±0.34 <sup>ab</sup>	6.61±0.54 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
LA	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	5.54±0.31 <sup>a</sup>	5.04±0.55 <sup>a</sup>	5.93±0.03 <sup>a</sup>	10.34±0.49 <sup>a</sup>	10.89±0.67 <sup>a</sup>	11.02±0.88 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
CRM	n.d.	n.d.	n.d.	27.38±0.7 <sup>a</sup>	34.23±0.67 <sup>b</sup>	39.872±0.77 <sup>c</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
HP	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	17.94±1.0 <sup>c</sup>	12.5±0.2 <sup>ab</sup>	11.56±0.05 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
AP	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	13.69±0.8 <sup>a</sup>	13.99±0.2 <sup>a</sup>	14.5±0.55 <sup>ab</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
LG2	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	8.56±0.03 <sup>a</sup>	7.55±0.46 <sup>a</sup>	8.66±0.55 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
<i>Hydroxycinnamic acids</i>																		
DIFQ	18.5±0.2 <sup>a</sup>	18.02±0.4 <sup>a</sup>	17.92±0.5 <sup>a</sup>	n.d.	n.d.	n.d.	11.22±0.3 <sup>a</sup>	10.22±0.4 <sup>a</sup>	10.33±0.1 <sup>a</sup>	20.01±0.89 <sup>a</sup>	19.88±0.44 <sup>a</sup>	20.07±0.31 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
CHG	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	15.00±0.3 <sup>a</sup>	15.01±0.2 <sup>a</sup>	14.49±0.56 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
RSM	n.d.	n.d.	n.d.	24.45±0.7 <sup>a</sup>	27.09±0.89 <sup>b</sup>	29.62±0.33 <sup>c</sup>	4.26±0.12 <sup>c</sup>	3.99±0.2 <sup>ab</sup>	3.04±0.10 <sup>a</sup>	4.34±0.23 <sup>a</sup>	4.09±0.12 <sup>a</sup>	5.08±0.23 <sup>ab</sup>	23.95±0.67 <sup>a</sup>	23.00±0.78 <sup>a</sup>	24.16±0.6 <sup>ab</sup>	n.d.	n.d.	n.d.
CHA	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	16.44±0.88 <sup>b</sup>	15.23±0.2 <sup>ab</sup>	14.76±0.55 <sup>a</sup>	n.d.	n.d.	n.d.
<i>Phenolic terpene</i>																		
CRN	n.d.	n.d.	n.d.	35.9±0.88 <sup>a</sup> <sub>b</sub>	34.99±0.34 <sup>a</sup>	35.56±0.65 <sup>a</sup>	21.61±0.33 <sup>a</sup>	21.06±0.56 <sup>a</sup>	21.09±0.33 <sup>a</sup>	26.13±0.55	n.d.	n.d.	26.13±0.35 <sup>a</sup>	25.21±0.83 <sup>a</sup>	25.52±0.67 <sup>a</sup>	n.d.	n.d.	n.d.
CAR	n.d.	n.d.	n.d.	67.05±0.89 <sup>a</sup>	67.33±0.56 <sup>a</sup>	66.92±0.44 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
<i>phenolic acids</i>																		
DHB	66.1 ±1.12 <sup>c</sup>	48.23±0.87 <sup>b</sup>	28.15±1.34 <sup>a</sup>	132.7±0.19 <sup>c</sup>	89.45±0.88 <sup>b</sup>	75.08±0.67 <sup>a</sup>	15.29±0.76 <sup>a</sup>	17.92±1.56 <sup>b</sup>	19.11±0.45 <sup>c</sup>	32.92±1.2 <sup>ab</sup>	27.09±0.89 <sup>a</sup>	27.91±0.22 <sup>a</sup>	49.92±0.34 <sup>c</sup>	43.09±0.11 <sup>b</sup>	40.70±0.31 <sup>a</sup>	38.62±0.77 <sup>a</sup>	45.98±0.81 <sup>b</sup>	59.96±0.47 <sup>c</sup>
HB	196.1±0.7 <sup>a</sup>	199.53±0.2 <sup>b</sup>	210.97±0.4 <sup>c</sup>	252.99±0.5 <sup>a</sup>	255.09±0.89 <sup>a</sup> <sup>b</sup>	262.57±0.7± <sup>c</sup>	255.68±0.6 <sup>a</sup>	267.09±0.3 <sup>b</sup>	285.47±0.5 <sup>6c</sup>	293.43±0.7 <sup>5c</sup>	290.99±1.22 <sup>b</sup>	272.38±1.0 <sup>9a</sup>	266.43±1.43 <sup>b</sup>	260.00±0.5 <sup>6a</sup>	261.91±0.8 <sup>9a</sup>	250.79±0.7 <sup>8a</sup>	273.21±0.54 <sup>b</sup>	292.54±0.9 <sup>2c</sup>
<i>Tyrosol</i>																		
HDT	n.d.	n.d.	n.d.	13.34±0.2 <sup>c</sup>	10.22±0.45 <sup>b</sup>	7.87±0.33 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
TYR	n.d.	n.d.	n.d.	5.67±0.23 <sup>a</sup>	6.66±0.76 <sup>ab</sup>	7.69±0.39 <sup>c</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
OLEP	n.d.	n.d.	n.d.	28.63±0.3 <sup>c</sup>	25.09±0.78 <sup>b</sup>	17.38±0.34 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
<i>Lignans</i>																		
ISR	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	3.01±0.45 <sup>b</sup>	3.09±0.22 <sup>ab</sup>	2.93±0.31 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
SES	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	19.15±0.23 <sup>a</sup>	19.05±0.11 <sup>a</sup>	19.31±0.21 <sup>a</sup>
<i>Hydroxyphenylpropene</i>																		
PRD	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	20.71±0.34 <sup>a</sup>	19.09±0.21 <sup>a</sup>	19.99±0.11 <sup>a</sup>
GNG	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	13.521±0.3 <sup>a</sup>	12.04±0.45 <sup>a</sup>	13.261±0.7 <sup>a</sup>
<i>Hydroxybenzaldehyde</i>																		
VAN	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	2.45±0.56 <sup>a</sup>	2.33±0.33 <sup>a</sup>	2.66±0.41 <sup>a</sup>	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Hydroxy-Luteolin-glucoside – HLG; Nepetrin: NP; Luteolin-glucuronide -LG; Plantagin: PL; Luteolin-acetyl-glucuronide: LAG; Luteolin-glucoside: LA; Cirsimaritin: CRM; Homoplantagin (Hispidulin-glucoside): HP; Apigenin-glucoside: AP; Luteolin-glucoside2:LG2; Luteolin-glucuronide (Rosemaryic acid): LGRS; Dicafeoylquinic acid: DIFQ; Chlorogenic acid: CHG; Rosemaryic acid-RSM; Chicoric acid: CHA; Carnosol: CRN; Carnosic acid: CAR; Dihydroxybenzoic acid: DHB; Hydroxybenzoic acid: HB; Hydroxytyrosol: HDT; Tyrosol: TYR; Oleoropein derivative: OLEP; Isolariciresinol: ISR; Sesamin: SES; Paradol: PRD; Gingerol: GNG; Vanilin: VAN; Mean values of three different determinations followed by standard deviation; M<sub>1</sub>T – cooked sirloin marinated only with salt and pepper; M<sub>2</sub>T – cooked sirloin marinated with olive oil, rosemary, salt and pepper; M<sub>3</sub>T – cooked sirloin marinated with pumpkin oil, oregano, salt and pepper; M<sub>4</sub>T – cooked sirloin marinated with sunflower oil, thyme, salt and pepper; M<sub>5</sub>-sirloin marinated with walnut oil, basil, salt and pepper; M<sub>6</sub>-sirloin marinated with sesame oil, ginger, salt and pepper; Values not sharing the same small letter in a row indicate significant difference between the same sample at different moments: 24h, 72h, 120h; n.d.–not detected.