

Figure S1. Effects of BSGLP or RSGLP on cell viability in non-cancerous GES-1 cells. Cells were treated with (A) BSGLP or (B) RSGLP for 24, 48 or 72 h, and cell viability was assessed using MTT assay. \* $P<0.05$ , \*\* $P<0.01$ , \*\*\* $P<0.001$  vs. control. BSGLP, sporoderm-broken spores of *G. lucidum* polysaccharide; RSGLP, sporoderm-removed spores of *G. lucidum* polysaccharide.

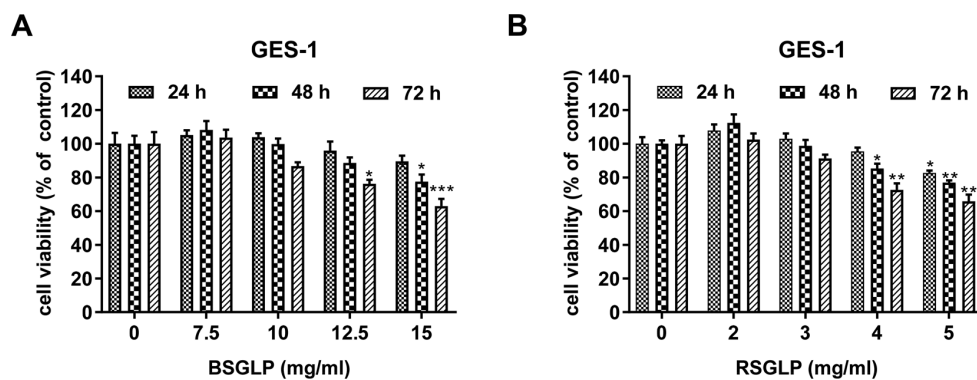


Figure S2. Western blotting of LC3-II and p62 expression in MKN28 and NCI-N87 cells. MKN28 and NCI-N87 cells were treated with 0, 2.0, 2.5, 3.0 or 3.5 mg/ml RSGLP for 24 h, respectively. RSGLP, sporoderm-removed spores of *G. lucidum* polysaccharide.

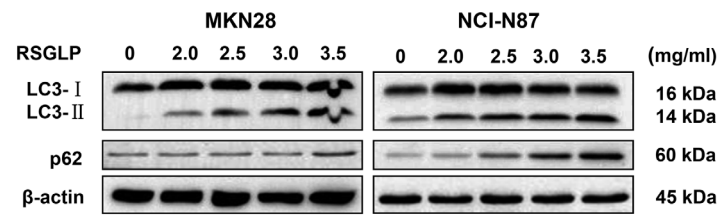


Figure S3. Autophagosome accumulation and autophagy flux disruption further increases RSGLP-induced PARP cleavage in AGS cells. PARP and cleaved-PARP expression as determined by Western blotting. AGS cells were treated with RSGLP (3 mg/ml) with or without CQ (5  $\mu$ M) or Rap (2  $\mu$ M) for 36 h. RSGLP, sporoderm-removed spores of *G. lucidum* polysaccharide; CQ, chloroquine; Rap, rapamycin.

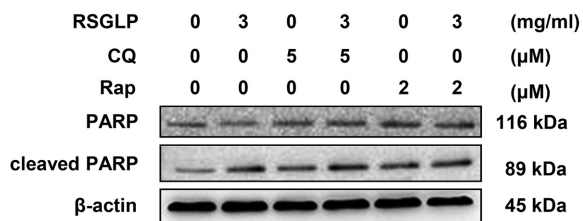


Table SI. The IC<sub>50</sub> of BSGLP and RSGLP in non-cancerous GES-1, and cancerous MKN28, NCI-N87, and AGS gastric cell lines.

Group	Hour	IC <sub>50</sub> (mg/ml) <sup>a</sup>			
		GES-1	MKN28	NCI-N87	AGS
BSGLP	24 h	-	18.58±2.74	15.98±2.45	13.59±2.22
	48 h	36.69±1.76	15.59±1.53	13.28±2.26	11.83±1.54
	72 h	29.92±1.61	11.83±2.74	10.07±2.11	9.51±1.67
RSGLP	24 h	-	5.20±1.02	6.55±1.16	4.73±2.95
	48 h	20.45±2.53	4.39±1.27	4.89±1.67	3.50±2.28
	72 h	17.04±1.07	3.38±1.09	3.29±1.76	2.29±1.33

<sup>a</sup>Values are mean ± SE of three independent experiments (n=10/plate, 3 plates). BSGLP, sporoderm-broken spores of *G. lucidum* polysaccharide; RSGLP, sporoderm-removed spores of *G. lucidum* polysaccharide.