

Table S1. Relative proportions of solid dispersion components.

| GA | L-Arg | Soluplus® |
|----|-------|-----------|
| 1 | 0.5 | 1 |
| 1 | 1 | 1 |
| 1 | 2 | 1 |
| 1 | 5 | 1 |
| 1 | 10 | 1 |
| 1 | 1 | 0.5 |
| 1 | 1 | 2 |
| 1 | 1 | 5 |
| 1 | 1 | 10 |
| 1 | 1 | 15 |

Note: Reagent ratios are presented by the mass ratio (w/w/w)

Table S2. Grouping and sampling of mice in the ear edema model (n=5).

| Group | TPA-induced | Gavage drug delivery | Tissue Sampling |
|-------------|-------------|----------------------|--------------------|
| Control | - | PBS | Ear, Liver, Kidney |
| TPA group | + | PBS | Ear |
| GA group | + | GA (20 mg/kg) | Ear, Liver, Kidney |
| GA-SD group | + | GA-SD (20 mg/kg) | Ear, Liver, Kidney |

Table S3. Grouping and sampling of mice in ethanol-induced gastric ulcer model (n=5).

| Group | ethanol-induced | Gavage drug delivery | Tissue Sampling |
|-------------|-----------------|----------------------|-----------------|
| Control | - | PBS | Stomach |
| Model group | + | PBS | Stomach |
| GA group | + | GA (20 mg/kg) | Stomach |
| GA-SD group | + | GA-SD (20 mg/kg) | Stomach |

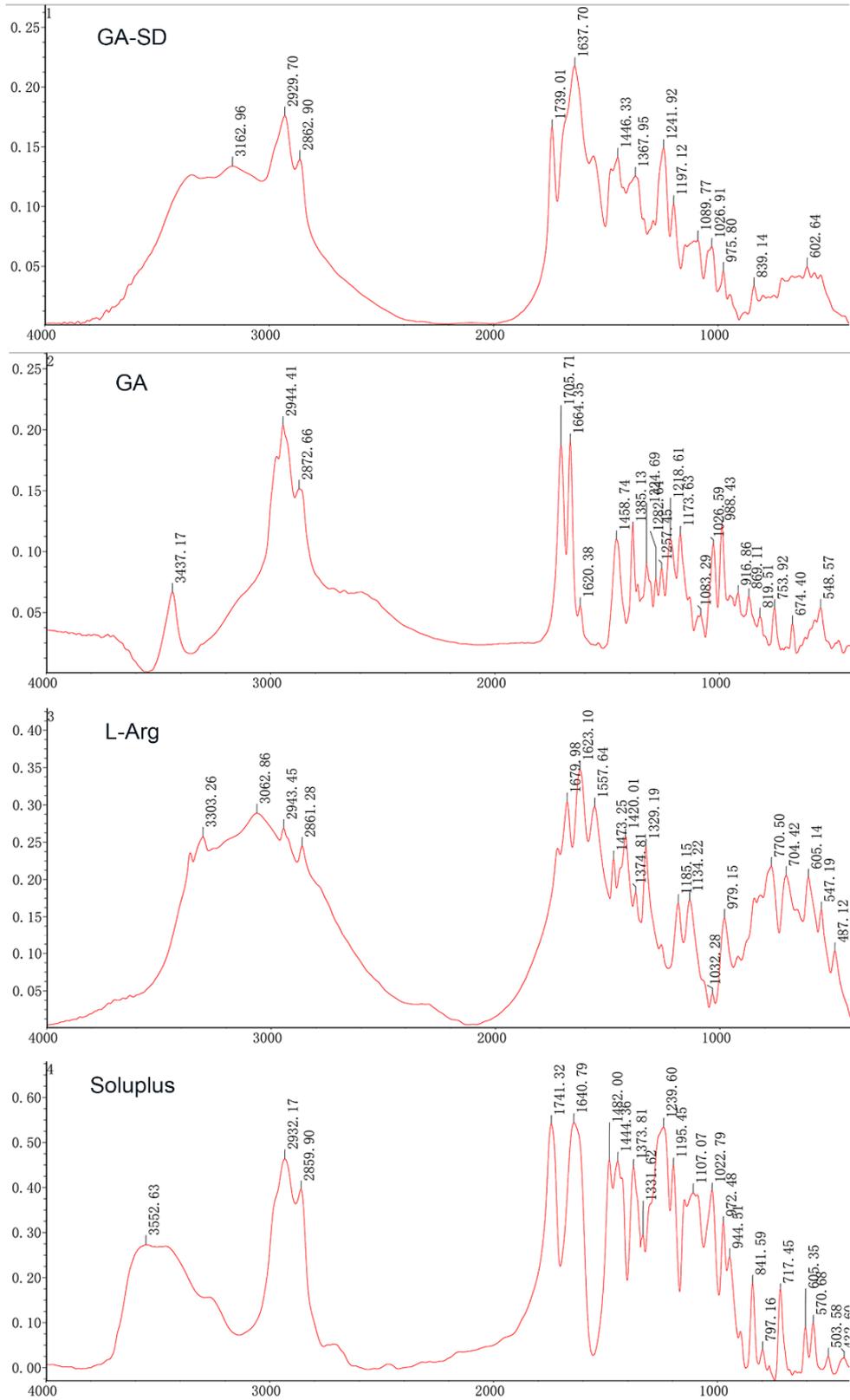


Figure S1. FT-IR analysis.

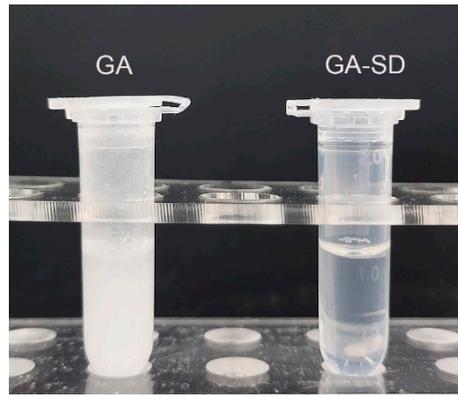


Figure S2. Dissolution phenomena for 10 mg GA, GA-SD samples in 1 mL water.

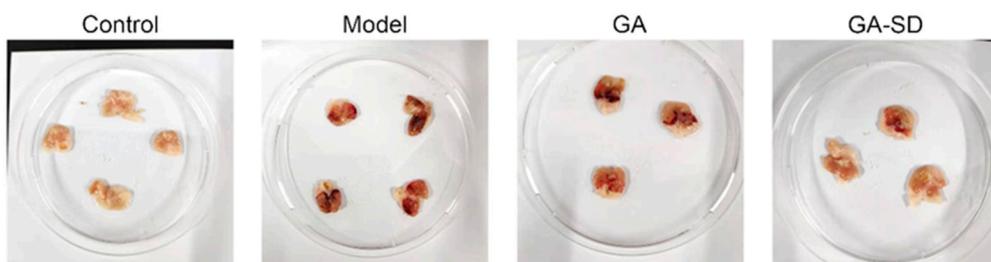


Figure S3. Macroscopic appearance of gastric tissues.