

**Table S1.** Characteristics of patients with epithelial ovarian tumour.

| Characteristics            | EBOT              | EOC               |
|----------------------------|-------------------|-------------------|
| Total number               | 15                | 15                |
| Gender(no.)                |                   |                   |
| Female                     | 15                | 15                |
| Male                       | 0                 | 0                 |
| Age (years, mean $\pm$ SD) | 42.47 $\pm$ 6.163 | 56.33 $\pm$ 8.147 |
| Weight (kg, mean $\pm$ SD) | 51.8 $\pm$ 4.57   | 50.6 $\pm$ 3.562  |
| BMI (mean $\pm$ SD)        | 20.38 $\pm$ 0.92  | 20.03 $\pm$ 0.59  |

**Table S2.** Chemicals information.

| Chemicals                        |                              |                   |
|----------------------------------|------------------------------|-------------------|
| Tryptic soy Broth (TSB)          | Becton,Dickinson and Company | Cat#0350681       |
| Man Rogosa Sharpe (MRS)          | Sangon Biotech               | Cat#M8330         |
| Cause's Synthetie Agar           | Solarbio                     | Cat#LA7000        |
| Brain Heart Infusion (BHI)       | Sangon Biotech               | Cat# B530122-0010 |
| Ampicillin                       | Sangon Biotech               | Cat# B540124-0500 |
| Vancomycin hydrochloride         | Sangon Biotech               | Cat# A100990-0100 |
| Neomycin trisulfate salt hydrate | Sangon Biotech               | Cat# A610366-0100 |
| metronidazole                    | Sangon Biotech               | Cat# A600633-0025 |

**Table S3.** The grouping treatment of animal.

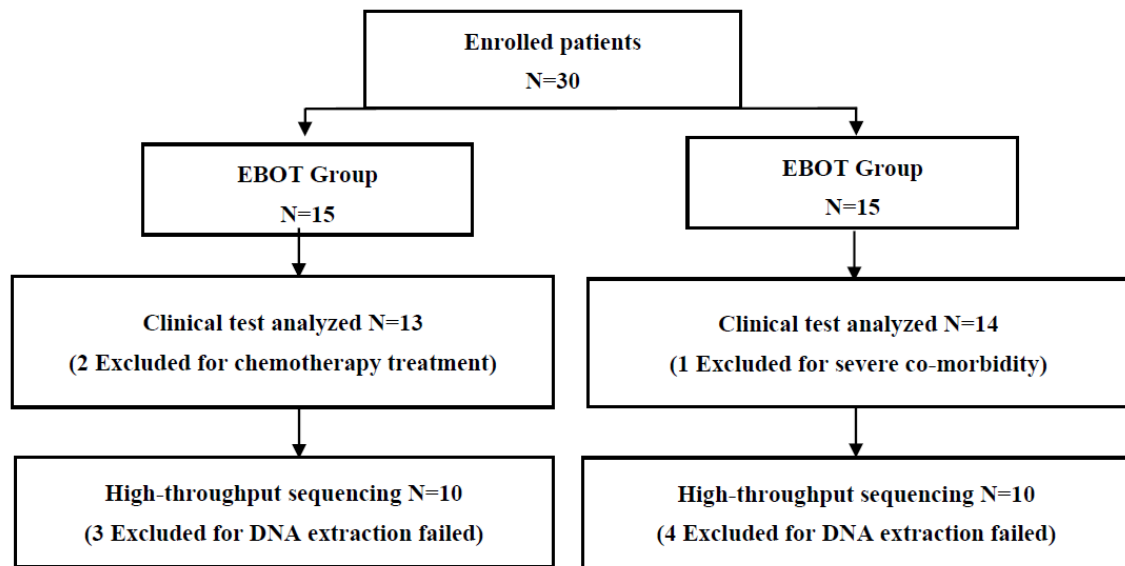
|                 | Antibiotic mixture | Intratumoral bacteria injection | GANT61 injection |
|-----------------|--------------------|---------------------------------|------------------|
| Group M         | –                  | –                               | –                |
| Group M-A       | +                  | –                               | –                |
| Group M-A-BMBT  | +                  | +                               | –                |
| Group M-A-MMBT  | +                  | +                               | –                |
| Group M-A-SBT   | +                  | +                               | –                |
| Group M-A-MBT   | +                  | +                               | –                |
| Group M-A-G     | +                  | –                               | +                |
| Group M-A-SBT-G | +                  | +                               | +                |
| Group M-A-MBT-G | +                  | +                               | +                |

**Table S4.** The information of primers.

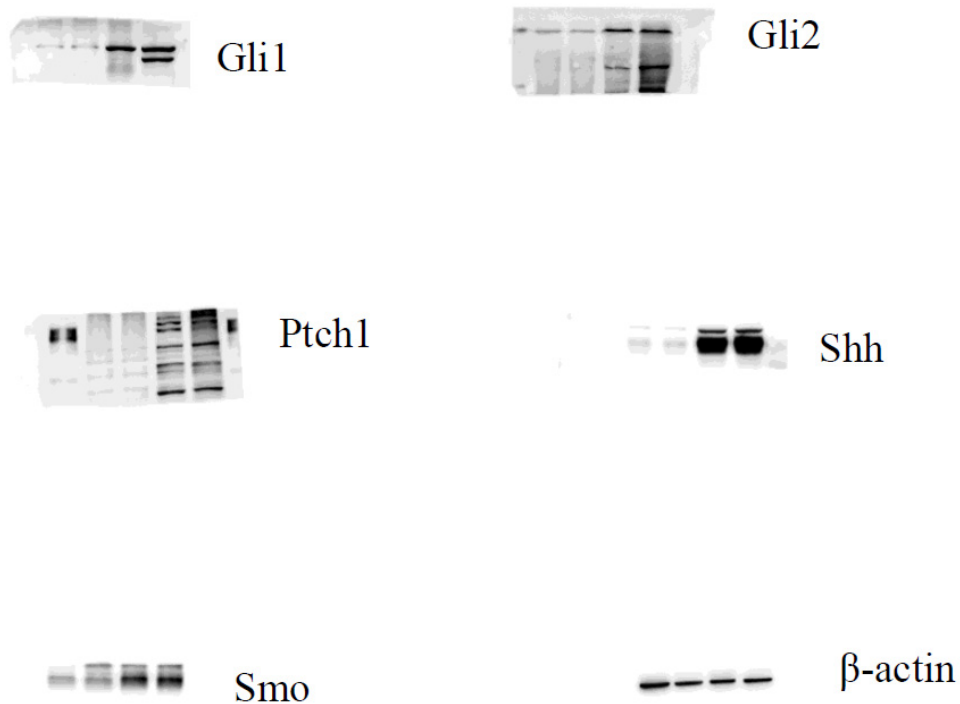
| cytokines    | Forward prime Sequences      | Reverse prime Sequences      |
|--------------|------------------------------|------------------------------|
| GAPDH        | 5'-AGCCAAAAGGGTCATCATCT-3'   | 5'-GGGGCCATCCACAGTCTTCT-3'   |
| TNF $\alpha$ | 5'-GTGGAAGTGGCAGAAGAGGCA -3' | 5'-AGAGGGAGGCCATTTGGGAAC -3' |
| IL-1 $\beta$ | 5'-GTGTCTTTCCCGTGGACCTTC-3'  | 5'-GCTTAGGCATAACGCACT-3'     |
| IL-6         | 5'-GAAATCGTGGAAATGAG -3'     | 5'-GCTTAGGCATAACGCACT -3'    |

**Table S5.** The information of each specific antibody.

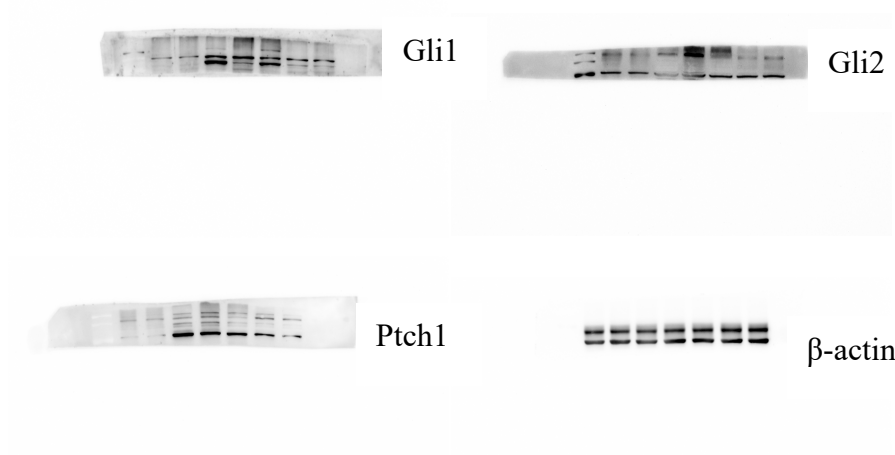
| protein        | Product Catalog | brand                     | Dilution ratio |
|----------------|-----------------|---------------------------|----------------|
| $\beta$ -actin | 4970S           | Cell Signaling Technology | 1:1000         |
| Gli1           | 66905-1-Ig      | Proteintech               | 1:1000         |
| Gli2           | 18989-1-AP      | Proteintech               | 1:1000         |
| Smo            | 66851-1-Ig      | Proteintech               | 1:2000         |
| Shh            | 20697-1-AP      | Proteintech               | 1:500          |
| Ptch1          | 821180          | ZEN BIO                   | 1:1000         |



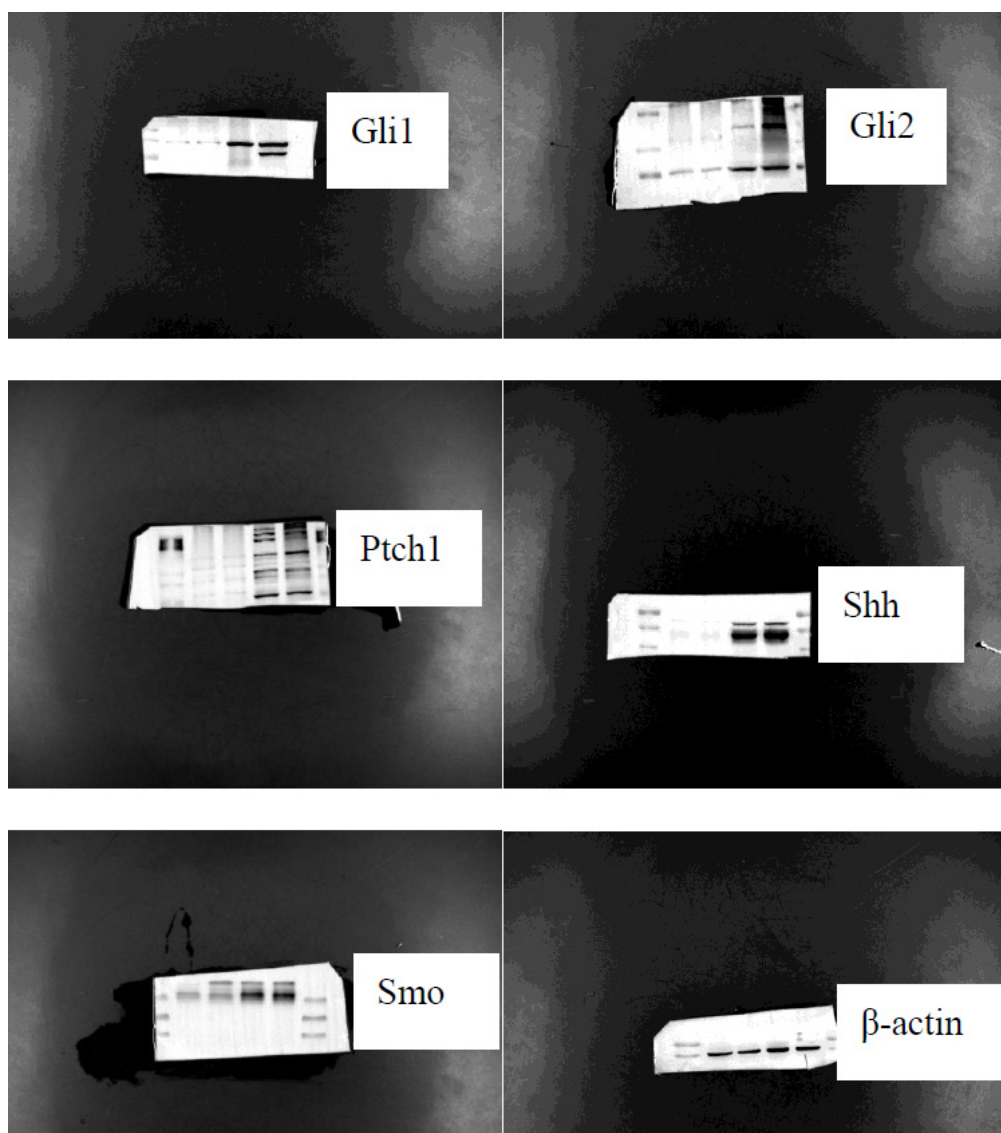
**Figure S1.** This study initially included 30 patients, of which 3 were excluded due to chemotherapy treatment and severe co-morbidity. Thereafter, 27 patients were collected for bacterial and microbial DNA extraction. During this process, 7 patients failed to extract DNA and were excluded.



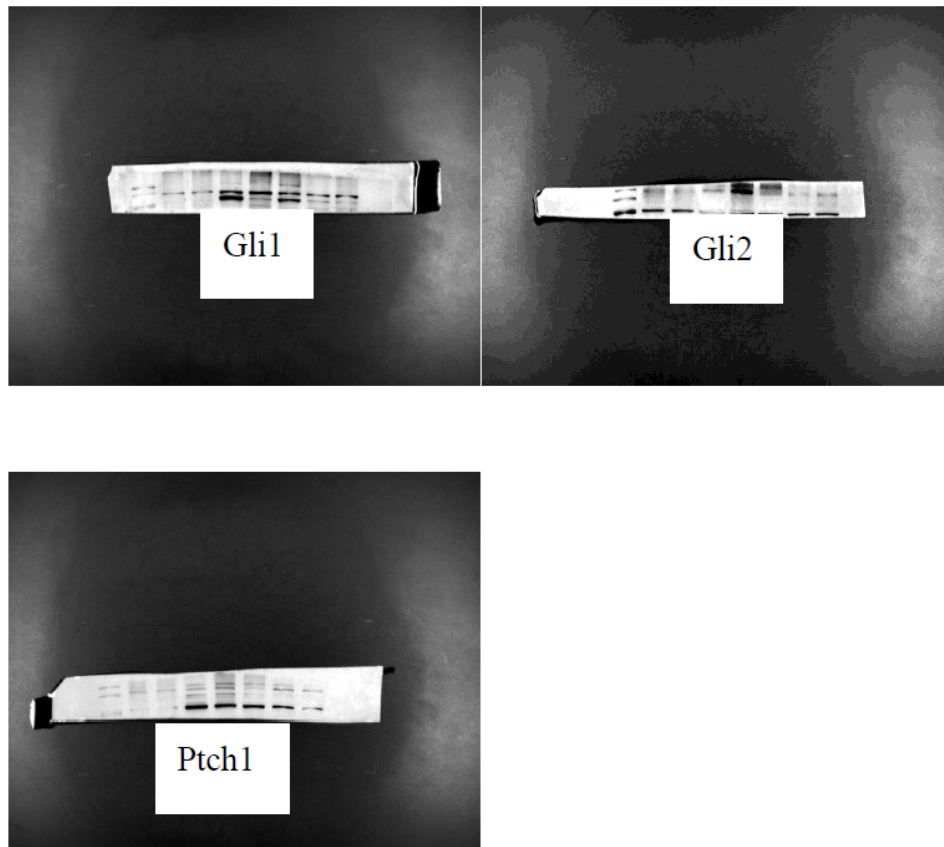
**Figure S2.** Original western blot images. Figure 5F.



**Figure S3.** Original western blot images. Figure 6D.



**Figure S4.** The uncropped blots and molecular weight markers for Figure 5F.



**Figure S5.** The uncropped blots and molecular weight markers for Figure 6D.