

Supplementary materials

Table S1. qRT-PCR primer sequences used for *C. acnes*.

| Gene | Description | Primer |
|------------------------|--|--|
| PPA1761 | Lipase | Forward 5'-CCT CAA GGT GTC TGG TCA TC-3' Reverse 5'-GAC TTC GTC GTT TTT CCA GA-3' |
| PPA1796 | Lipase | Forward 5'-CTC AAG GTT CGT GAA CGA GT-3' Reverse 5'-GCC ATA GAG CTC CTT GTT GA-3' |
| PPA2105 | Lipase | Forward 5'-GAT TTC CTT AGC ACG TGG AG-3' Reverse 5'-GAT GAC GGT GTA GGC GAT AC-3' |
| PPA380 | Hyaluronate lyase | Forward 5'-CGC TCT GAA GGA TTC GTC-3' Reverse 5'-GTC GTG CAG GAT ACA CAT GA-3' |
| <i>hly</i> | Hyaluronate lyase | Forward 5'-CAA CAT CGC CGT GTT TAT TG-3' Reverse 5'-CCC ATG ACG ACG TAG AGG AT-3' |
| PPA0149 | Glycosyltransferase | Forward 5'-AGT ACA TGG CTT CCC GAG TG-3' Reverse 5'-CTT GGG ACT CGA AGT TGA GC-3' |
| <i>btuR</i> | Cobinamide/cobalamin adenosyltransferase | Forward 5'-GGA AGA TGC TCT TCG GGC GCT-3' Reverse 5'-GCC TCA GGG TTC TCC GCA GC-3' |
| <i>cbiL</i> | Precorrin-2 C(20)-methyltransferase | Forward 5'-GCG CGA GGC AGA CGT GAT CC-3' Reverse 5'-GAC ACC GGA CCT CTC CCG CA-3' |
| <i>roxP</i> | Radical oxygenase | Forward 5'-GCA TCT AGC CCT CTC ACC AT-3' Reverse 5'-CTG AGA GTC CGG TAG GTG GT-3' |
| <i>tly</i> | Lysis of red blood cells | Forward 5'-CAG GAC GTG ATG GCA ATG CGA-3' Reverse 5'-TCG TTC ACA AGA CCA CAG TAG C-3' |
| PPA0349 | Polysaccharide capsule biosynthesis | Forward 5'-CTT CTT CGT CGA CCA GTT CC-3' Reverse 5'-TCA GCT GTC TCG TCA ACA CC-3' |
| <i>16s rRNA</i> | 16S ribosomal RNA (House keeping gene) | Forward 5'-GGG GCT TAA CCC TGA GCG TGC-3' Reverse 5'-TTC GCT CCC CAC GCT TTC GC-3' |

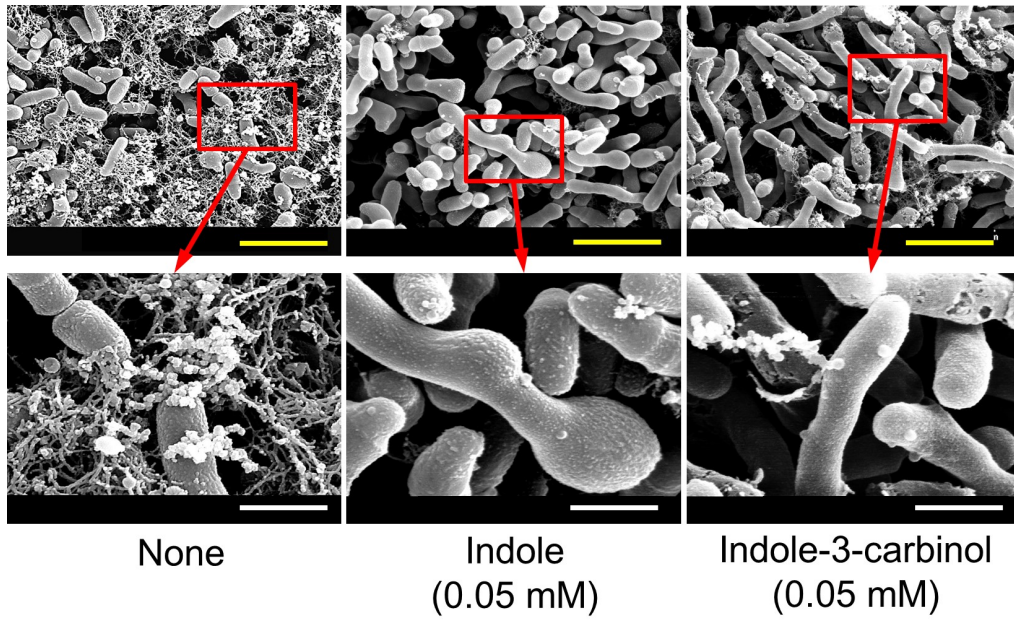


Fig. S1. SEM images of *C. acnes* biofilms formed in the presence or absence of indole and indole-3-carbinol. Yellow and white scale bars represent 3 μm and 750 nm, respectively.

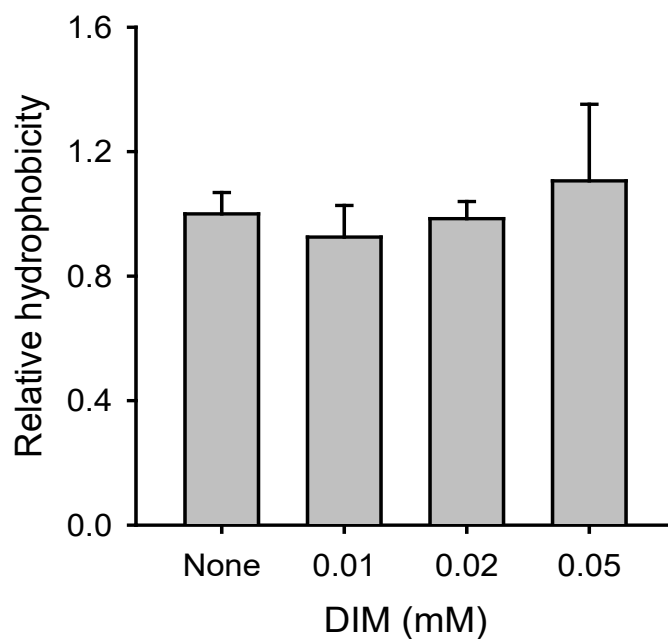


Fig. S2. Effect of DIM on the hydrophobicity of *C. acnes*. The cell surface hydrophobicity of *C. acnes* with or without individual DIM (0.01, 0.02 and 0.05 mM). *C. acnes* was cultured with or without DIM for 6 days at 37°C under the anaerobic condition. After incubation, cell cultures were prepared in sterile PBS at an OD₆₀₀ of ~ 0.5 by a proper dilution and same volume of toluene was added to 3 ml aliquots of cell suspensions and vortexed for 90 s. After vigorous mixing, the toluene phase was completely separated by incubation at room temperature for 10 h. The OD₆₀₀ values of aqueous phases were measured and cell surface hydrophobicity was quantified.