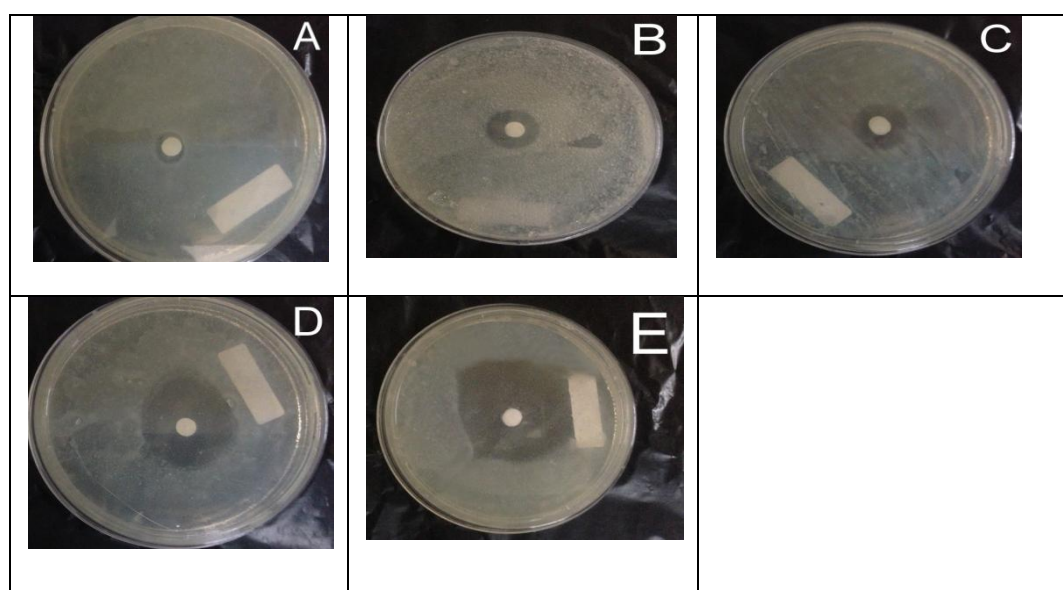
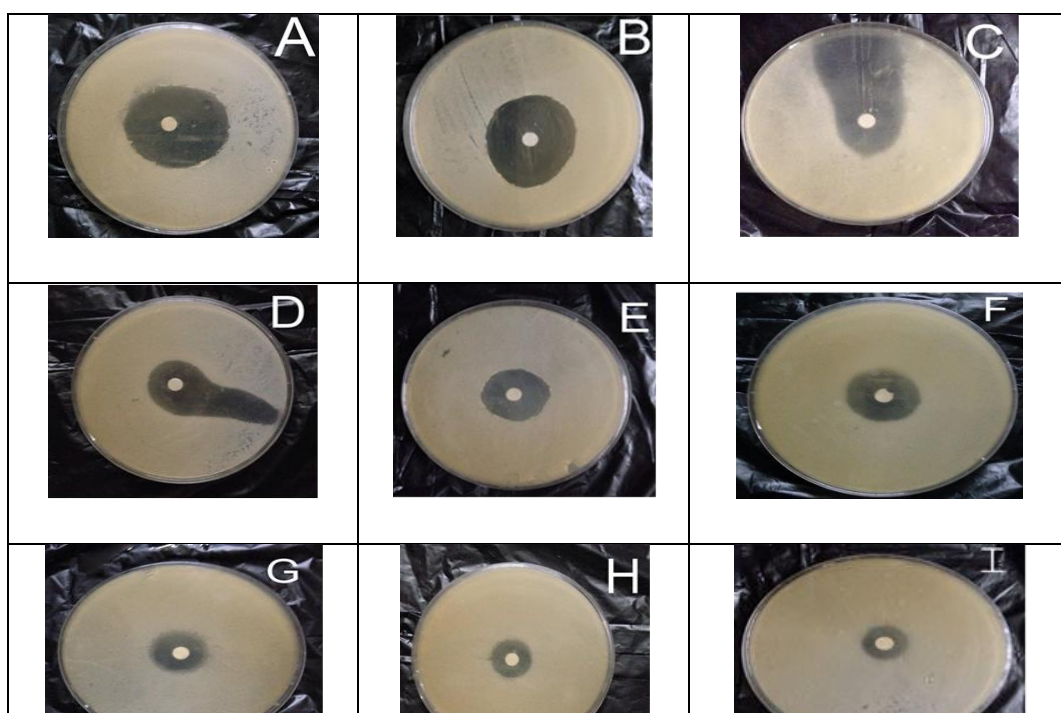


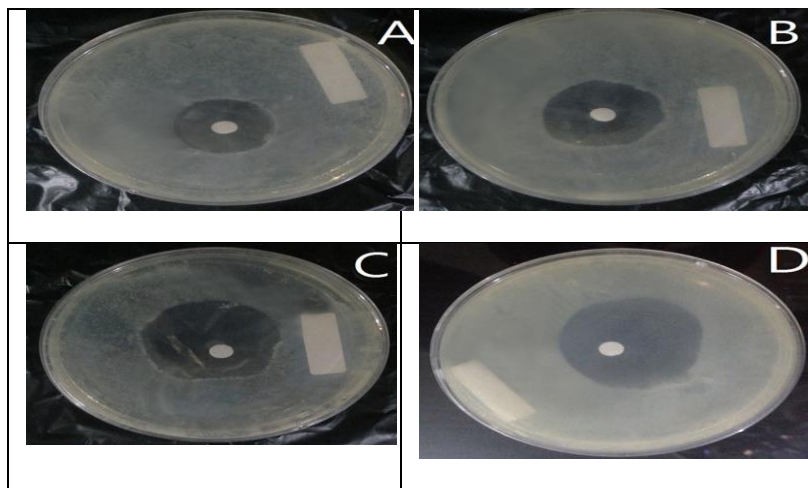
Supplementary Figure 1. Biochemical characteristics of *S. pyogenes* ZUH1 (A): antistreptolysin O assay, (B): blood hemolysis test, (C): Lipase activity, (D): Phospholipase activity and (E): Protease activity.



Supplementary Figure 2. Antibacterial activity of *C. sativus* with (A): ethanol extract, (B): benzene extract, (C): petroleum ether extract, (D): acetone extract, (E): methanol extract against *S. pyogenes*



Supplementary Figure 3. Antibacterial activity using disc diffusion assay against *S. pyogenes* ZUH1 of (A): Crude BH (100 %), (B): 90 % concentration, (C): 80 % concentration, (D): 70 % concentration, (E): 60 % concentration, (F): 50 % concentration, (G): 40 % concentration, (H): 30 % concentration, (I): 20 % concentration.



Supplementary Figure (4): Antibacterial activity of CFG against *S. pyogenes* ZUH1, (A): 50 µg/mL (B): 100 µg/mL (C): 250 µg/mL (D): 500 µg/mL.