

Serum preparation: A total of 400 μL of serum was combined with 200 μL of PBS/D₂O buffer (pH 7.4, containing 0.9% NaCl) using vortexing to ensure thorough mixing. The resulting mixture was then centrifuged at 10,000 rpm for 10 min at 4°C. Finally, the supernatant, which amounted to 550 μL , was carefully transferred into a 5 mm NMR tube for further analysis.