# Supporting Information

**Table S1.** Assignments of Raman bands in spectra for cells [1-8].

| Raman peaks ($cm^{-1}$) | Components | | | |
|---|---|---|---|---|
| | Nucleic acid | Proteins | Lipids | Carbohydrates |
| 792 | DNA (ν(OPO)backbone) | | | |
| 780-805 | C,T,U (ν(CC)ring) | | | |
| 843 | Phosphodiester νs(O–P–O) | | | |
| 941 | RNA/ribose (ν(CC)ring) | | | |
| 1003 | | Phe (νs(CC)ring) | | |
| 1030 | | Phe | ν(CC),phospholipids | (δ(CH))ν(CC), ν(CO), ν(C–OH) |
| 1077 | ν($PO_2^-$) | | | |
| 1092 | DNA ν($PO_2^-$) | | | |
| 1122 | | ν(C-N) ν(C-C) | ν(C-N) ν(C-C) | |
| 1199 | ν($PO_2^-$) | ν(C-N) | | |
| 1252 | | ν(C-N) | | |
| 1296 | | amide III (δ(NH), ν(CN)) | | |
| 1313 | | | t($CH_3CH_2$) | |
| 1334 | | ω($CH_3$/$CH_2$) | | |
| 1375 | A,G,T (ν(CC)ring) | glycoproteins (δ($CH_3$)) | lipids/acyl chains (δ($CH_3$)) | saccharides |
| 1446 | | | lipid denaturation | |
| 1436 | | δ($CH_2$, $CH_3$) | δ($CH_2$, $CH_3$) in acyl chain | |
| 1579 | Guanine; adenine | | | |
| 1660 | | AmideI(ν(C=O))/ α-helix | ν(C=C) | |
| 1720-1750 | | | ν(C=O)in ester COOR | |

Abbreviation：A-adenine; G-guanine; Glu- glucose; Phe- phenylalanine; δ- in-plane deformation; γ - out-of-plane deformation; ν- stretching; ρ -rocking; t- twisting; u- wagging. s- symmetric

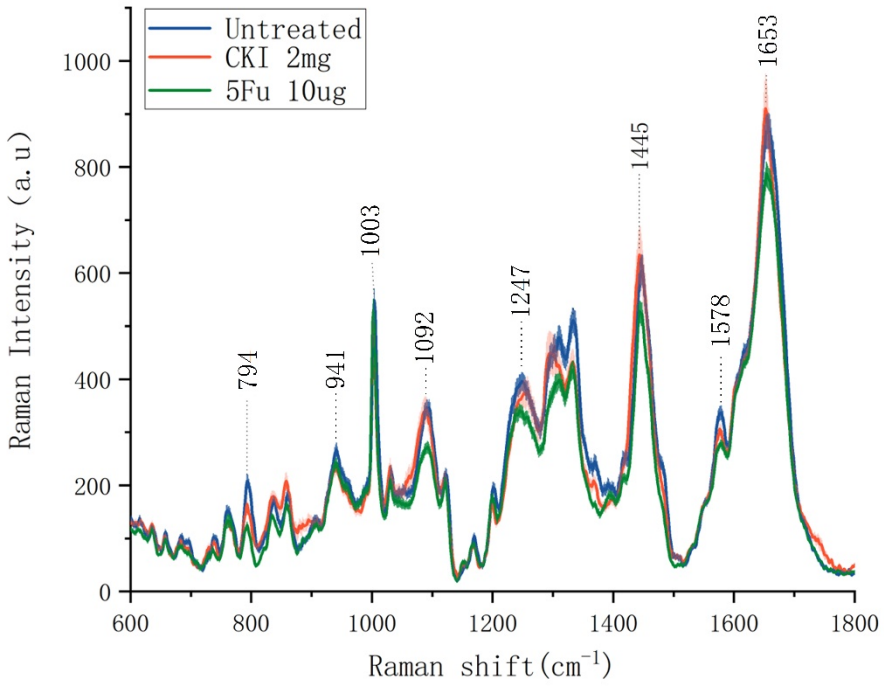


**Figure S1.** Raman spectrum from nucleus at 48h after drug action.

Reference

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