

Supplementary Table S1: The spectral assignments and protein components with their assigned wavelength in IR region

Infrared band	Integrated spectral range (cm ⁻¹)
Lipid Components	
CH ₂ symmetric stretching	2852–2800
CH ₂ asymmetric stretching	2915–2930
CH ₃ asymmetric stretching	2950–2960
*C-H stretching	2994–2800
Olefin = CH	3000–3027
Carbonyl ester (C = O) stretching	1745–1731
Protein Components	
Amide I	1700 – 1600
Amide II	1555 - 1535
Amide III	1350 - 1200
Amide I Secondary structure (1700 – 1600)	
α-helix	1660 - 1650
Random coil	1645 - 1630
Parallel β-sheet	1610 - 1635
Beta-shoulder (1665 – 1695)	
β-turn	1680
Anti-parallel β-sheet	1695

*Total lipid regions.