Supporting Information

Organization and Dynamics of Hippocampal Membranes in a Depth-dependent Manner: An Electron Spin Resonance Study

Pushpendra Singh,[§†] Pradip K. Tarafdar,[§‡] Musti J. Swamy[‡]*
and Amitabha Chattopadhyay[†]*

[§] Equal contribution

[†]Centre for Cellular and Molecular Biology, Council of Scientific and Industrial Research, Uppal Road, Hyderabad 500 007, India
[‡]School of Chemistry, University of Hyderabad, Hyderabad 500 046, India

Table S1

Values of g and A Tensor Components used for Simulations

Spin label	g_{xx}	g_{yy}	g_{zz}	A_{xx} (G)	A_{yy} (G)	A_{zz} (G)
5-PC	2.0080	2.0058	2.0024	5.5	5.5	33.3
14-PC	2.0087	2.0059	2.0024	5.4	5.4	33.0

Table S2

Outer Maximum Hyperfine Splitting ($2A_{max}$) values of ESR Spectra in Hippocampal Membranes and Liposomes of Lipid Extract*

Spin label	MβCD (mM)	Cholesterol content (%)	2Amax	
			Native	Lipid extract
5-PC	0	100	59.0 ± 0.6	58.1 ± 0.1
	10	78	58.5 ± 0.6	57.3 ± 0.3
	20	43	57.0 ± 0.7	55.9 ± 0.5
	30	24	56.1 ± 0.6	54.8 ± 0.4
	40	17	56.2 ± 0.7	54.6 ± 0.1
14-PC	0	100	41.2 ± 0.4	41.1 ± 0.3
	10	78	40.5 ± 0.1	40.6 ± 0.2
	20	43	39.5 ± 0.3	39.5 ± 0.4
	30	24	38.1 ± 0.1	38.0 ± 0.2
	40	17	37.6 ± 0.3	37.1 ± 0.4

*Values of the parameters shown correspond to means ± SD obtained from three independent measurements. All measurements were carried out at room temperature (~25 °C). See text and Experimental Section for other details.