



# Phase Transition Temperatures for Glycerophospholipids

Phosphatidylcholine		Phosphatidylglycerol (Sodium Salt)	
Product	T <sub>m</sub> (°C)	Product	T <sub>m</sub> (°C)
12:0 PC (DLPC)	-2	12:0 PG (DLPG)	-3
13:0 PC	14	14:0 PG (DMPG)	23
14:0 PC (DMPC)	24	16:0 PG (DPPG)	41
15:0 PC	35	18:0 PG (DSPG)	55
16:0 PC (DPPC)	41	18:1 PG (DOPG)	-18
17:0 PC	50	16:0-18:1 PG (POPG)	-2
18:0 PC (DSPC)	55	Phosphatidylserine (Sodium Salt)	
19:0 PC	62	14:0 PS (DMPS)	35
20:0 PC	66	16:0 PS (DPPS)	54
21:0 PC	71	18:0 PS (DSPS)	68
22:0 PC	75	18:1 PS (DOPS)	-11
23:0 PC	79.5	16:0-18:1 PS (POPS)	14
24:0 PC	80.3	Phosphatidic Acid (Sodium Salt)	
16:1 PC	-36	12:0 PA (DLPA)	31
18:1c9 PC (DOPC)	-17	14:0 PA (DMPA)	52
18:1t9 PC	12	16:0 PA (DPPA)	65
18:1c6 PC	1	18:0 PA (DSPA)	75
22:1c13 PC	13	18:1 PA (DOPA)	-4
18:2 PC	-57	16:0-18:1 PA (POPA)	28
18:3 PC	-60	Cardiolipin	
		14:0 CL	47
		16:0 CL	62.2

(table continued)

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(table continued)

		Phosphatidylethanolamine		
			T <sub>m</sub> (°C)	T <sub>h</sub> (°C)
20:4 PC	-69			
14:0-16:0 PC	35			
14:0-18:0 PC	40	12:0 PE (DLPE)	29	
16:0-14:0 PC	27	14:0 PE (DMPE)	50	
16:0-18:0 PC	49	16:0 PE (DPPE)	63	118
16:0-18:1 PC (POPC)	-2	18:0 PE(DSPE)	74	100
16:0-22:6 PC	-27	20:0 PE	83	96
18:0-14:0 PC	30	18:1c9 PE (DOPE)	-16	10
18:0-16:0 PC	44	18:1t9 PE	38	64
18:0-18:1 PC	6	18:2 PE	-40	-15
18:1-16:0 PC	-9	18:3 PE		-30
18:1-18:0 PC	9	16:0-18:1 PE (POPE)	25	71

## References

Thermotropic Phase Transitions of Pure Lipids in Model Membranes and Their Modifications by Membrane Proteins, Dr. John R. Silvius, *Lipid-Protein Interactions*, John Wiley & Sons, Inc., New York, 1982. Reprinted with permission from John Wiley & Sons, Inc.

Lipid Thermotropic Phase Transition Database ([LIPIDAT](http://lipidat.nist.gov)) – NIST Standard Reference Database 34