Table S2. Estimated parameters of sphingolipid domains.

Parameter	Description	Value	Value outside of sphingolipid domain	Value inside of sphingolipid domain
h_{ONM}, h_{INM}	Membrane thickness	-	4 nm	5.4 nm
h_p	Perinuclear space thickness at connecting bridge	13 ± 4 nm	13 nm	If domain only at ONM: 12.3 nm If domain at ONM and INM: 11.6 nm
μ_c, μ_n, μ_p	Bulk viscosities of cytoplasm, nucleoplasm and periplasm	11.967 x 10^{-4} Pa s	-	-
η_{ONM}	Surface viscosity of ONM	-	7.5333 x 10^{-9} Pa s m	2.6826 x 10^{-8} Pa s m
η_{INM}	Surface viscosity of INM	-	7.2424 x 10^{-9} Pa s m	2.5976 x 10^{-8} Pa s m
η_{NE}	Surface viscosity of NE $\eta_{ONM} + \eta_{INM} + \mu_p h_p$	-	1.4791 x 10^{-8} Pa s m	If domain only at ONM: 3.4083 x 10^{-8} Pa s m If domain at ONM and INM: 5.2816 x 10^{-8} Pa s m
γ_{Nsg1}	Viscous drag experienced by Nsg1-GFP	-	1.3951 x 10^{-8} Pa s m	4.1853 x 10^{-8} Pa s m
γ_{Src1}	Viscous drag experienced by GFP-Src1	-	1.3951 x 10^{-8} Pa s m	4.1853 x 10^{-8} Pa s m
γ_{NPC}	Viscous drag experienced by NPC	-	2.0926 x 10^{-8} Pa s m	If domain only at ONM: 7.3943 x 10^{-8} Pa s m If domain at ONM and INM: 1.0655 x 10^{-7} Pa s m
$D_{Nsg1\text{-}GFP}$	Effective diffusion rate of Nsg1-GFP	-	0.3 $\mu m^2/s$	0.1 $\mu m^2/s$
$D_{GFP\text{-}Src1}$	Effective diffusion rate of GFP-Src1	-	0.3 $\mu m^2/s$	0.1 $\mu m^2/s$
D_{NPC}	Effective diffusion rate of NPC	-	0.2 $\mu m^2/s$	Domain only at ONM: 0.0566 $\mu m^2/s$ Domain at ONM and INM: 0.0393 $\mu m^2/s$