

Fig. 1A



Fig.1B

Initiator (ATG)	GG	LBP1	GGGS GGGS	mCherry	GGGS	HN tag	StopTGA)
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Construct for a peptide binding with N-terminal (LBP1) production

Fig.1C

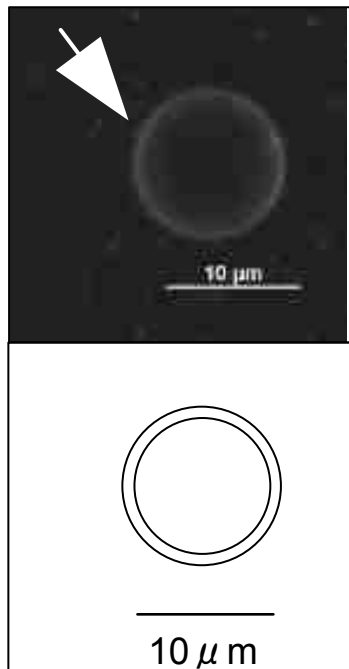


Fig. 1D

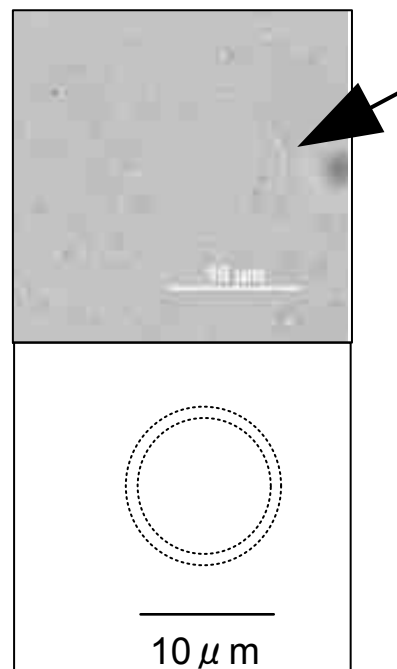


Fig. 2A

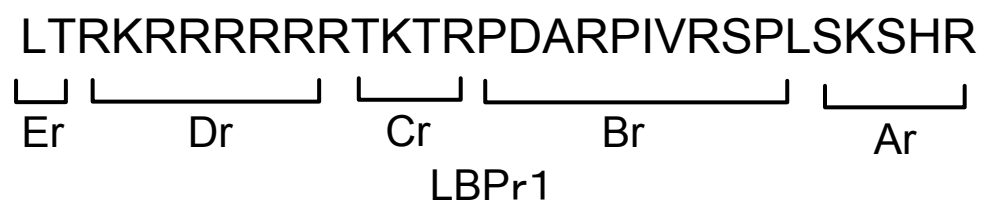


Fig. 2B

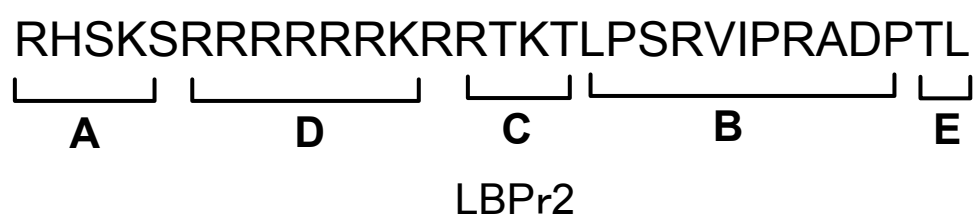


Fig. 2C

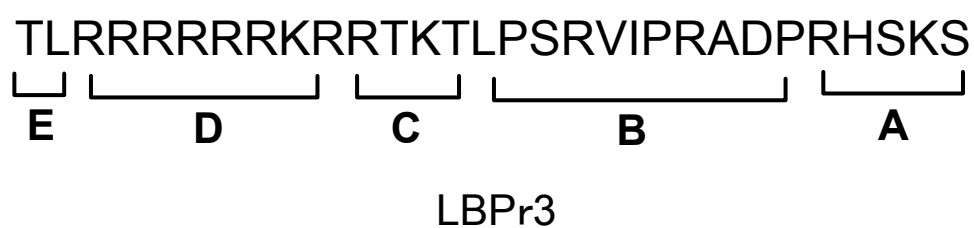


Fig. 2D



Schematic figure of the construct for the peptide binding
with C-terminal (LBPr1) production

Fig. 3

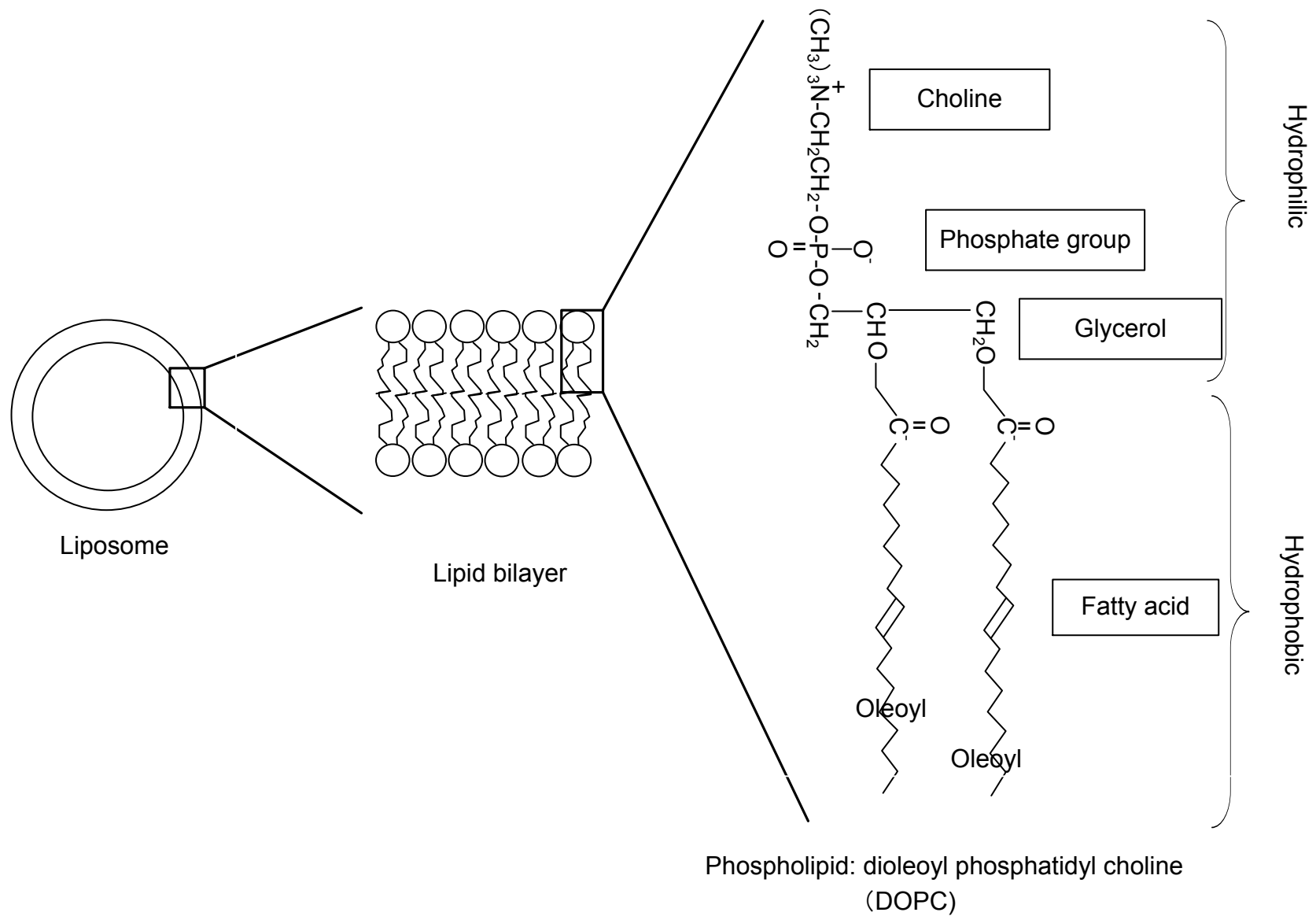


Fig. 4

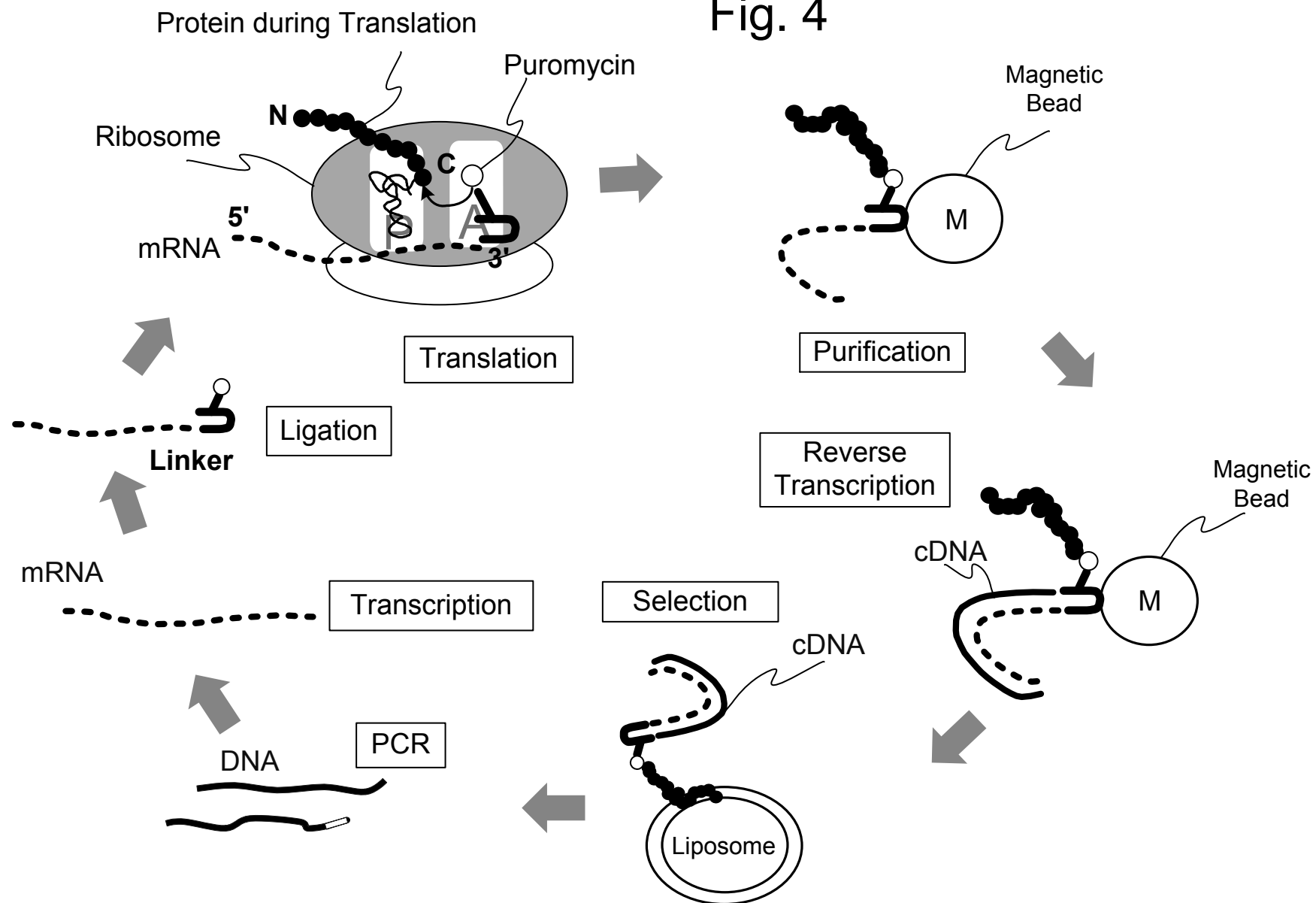


Fig. 5 mCherry-R8 Fusion Protein by Inverse PCR

Fig. 5A Insert Sequence **R8**

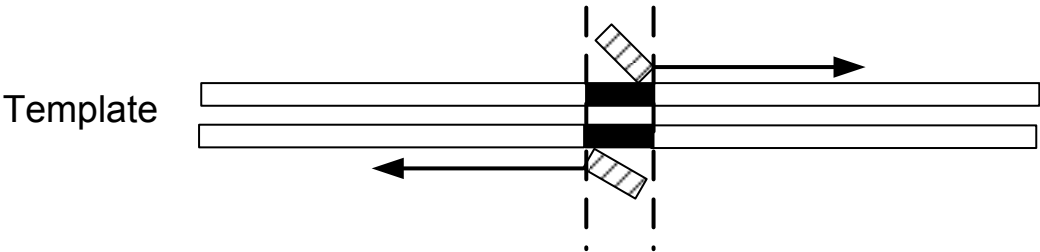
Fig. 5B Template (pET21α vector comprising the present sequence)



Fig. 5C PCR Product



Fig. 5D Before PCR



After PCR

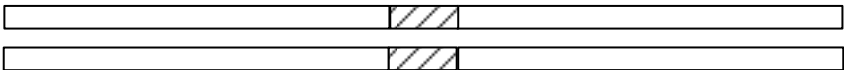


Fig. 6

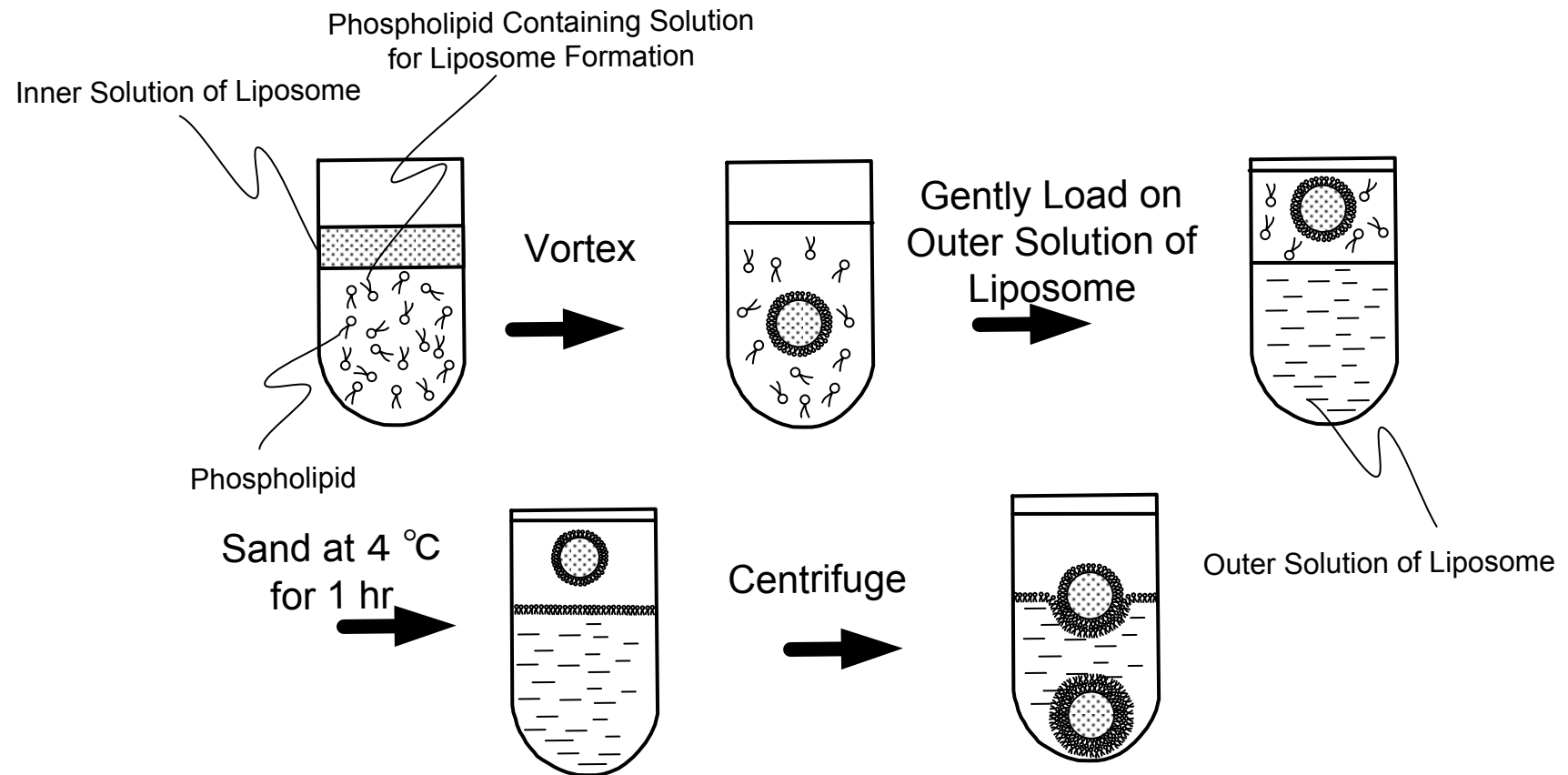
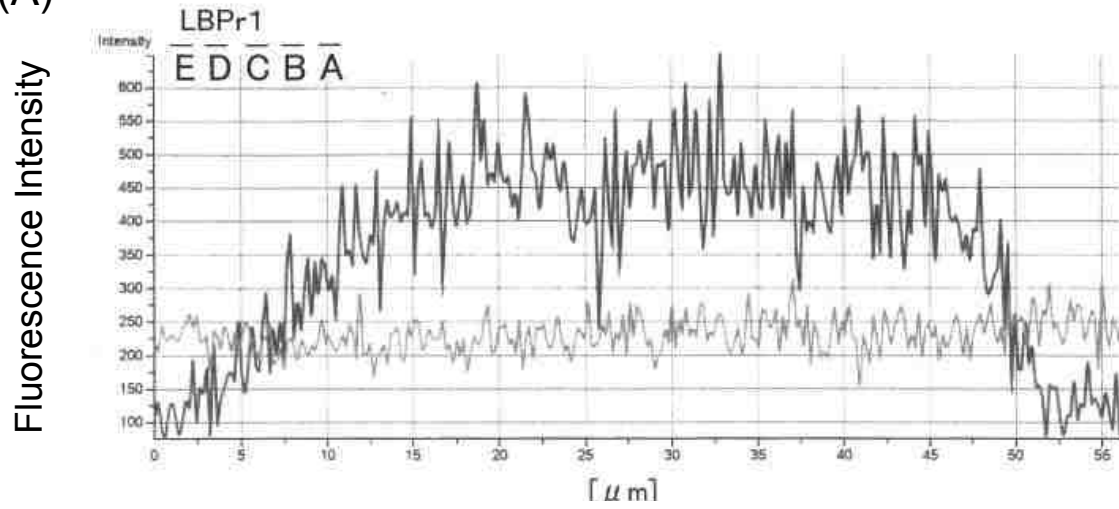
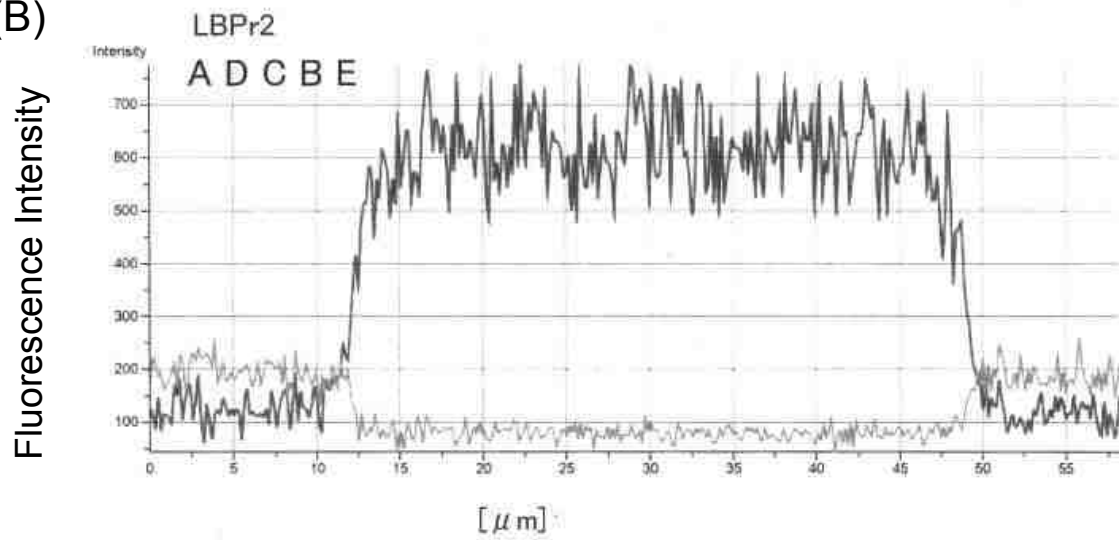


Fig. 7

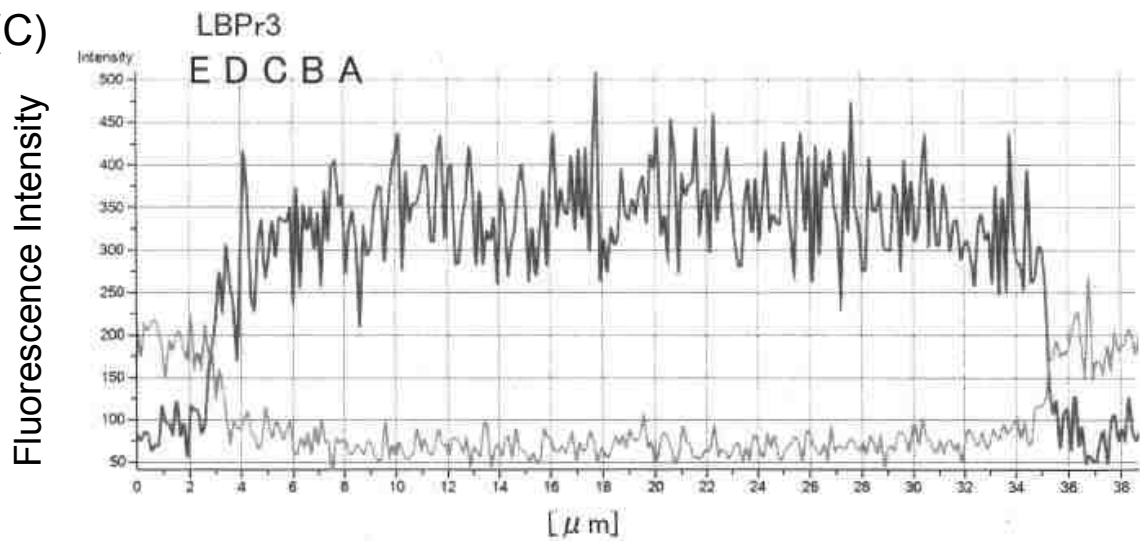
(A)



(B)



(C)



M-Cherry-LBPr1 is solely incorporated in DOPC liposome

Fig. 8

Fig. 8A Inner Solution of Liposome: 1 μM mCherry
Outer Solution of Liposome: : 1 μM GFP

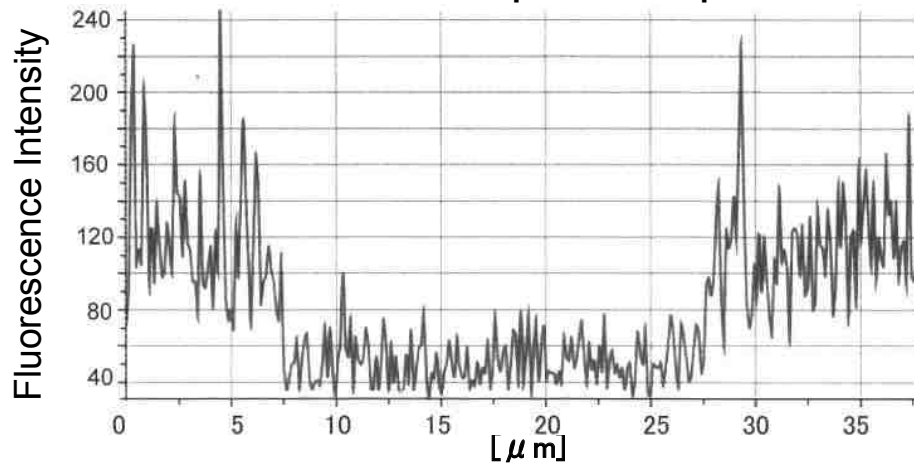


Fig. 8B

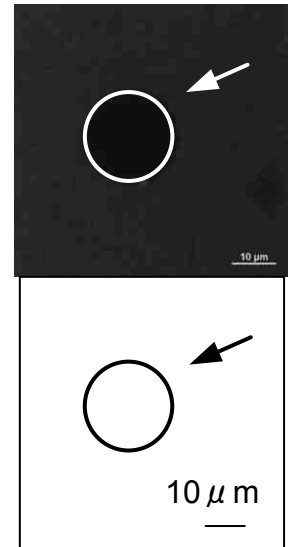


Fig. 8C Inner Solution of Liposome: 1 μM GFP-LBPr1 Fusion Protein
Outer Solution of Liposome: : 1 μM GFP

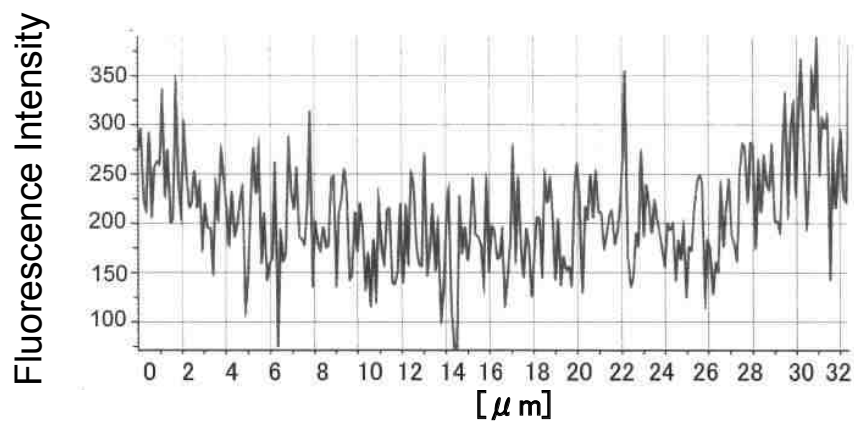


Fig. 8D

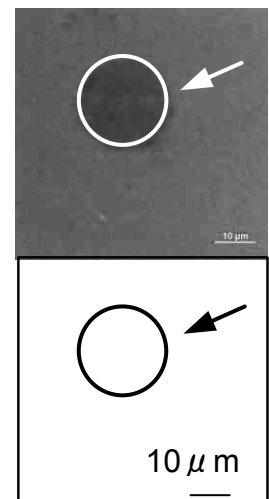


Fig. 9

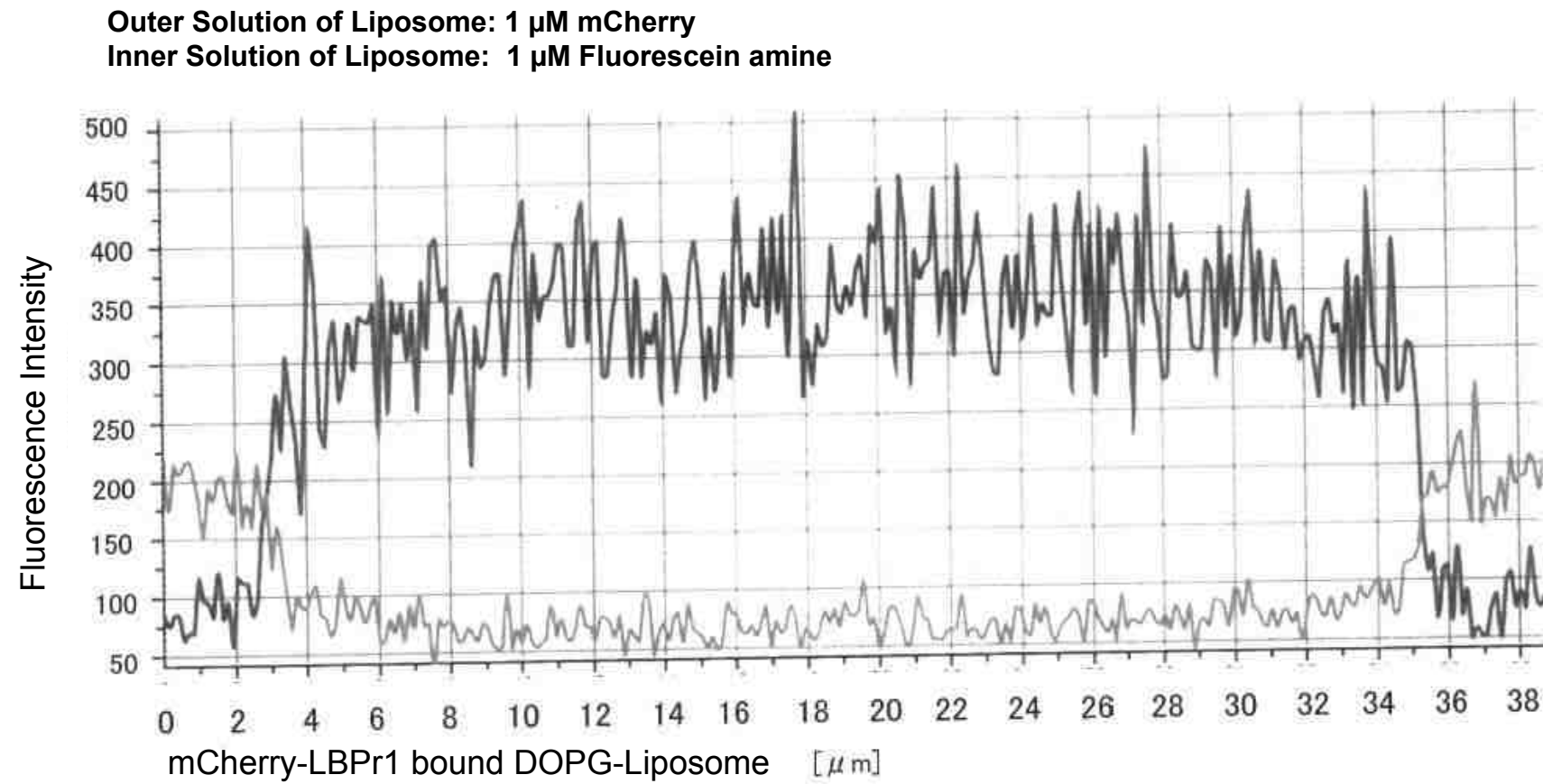
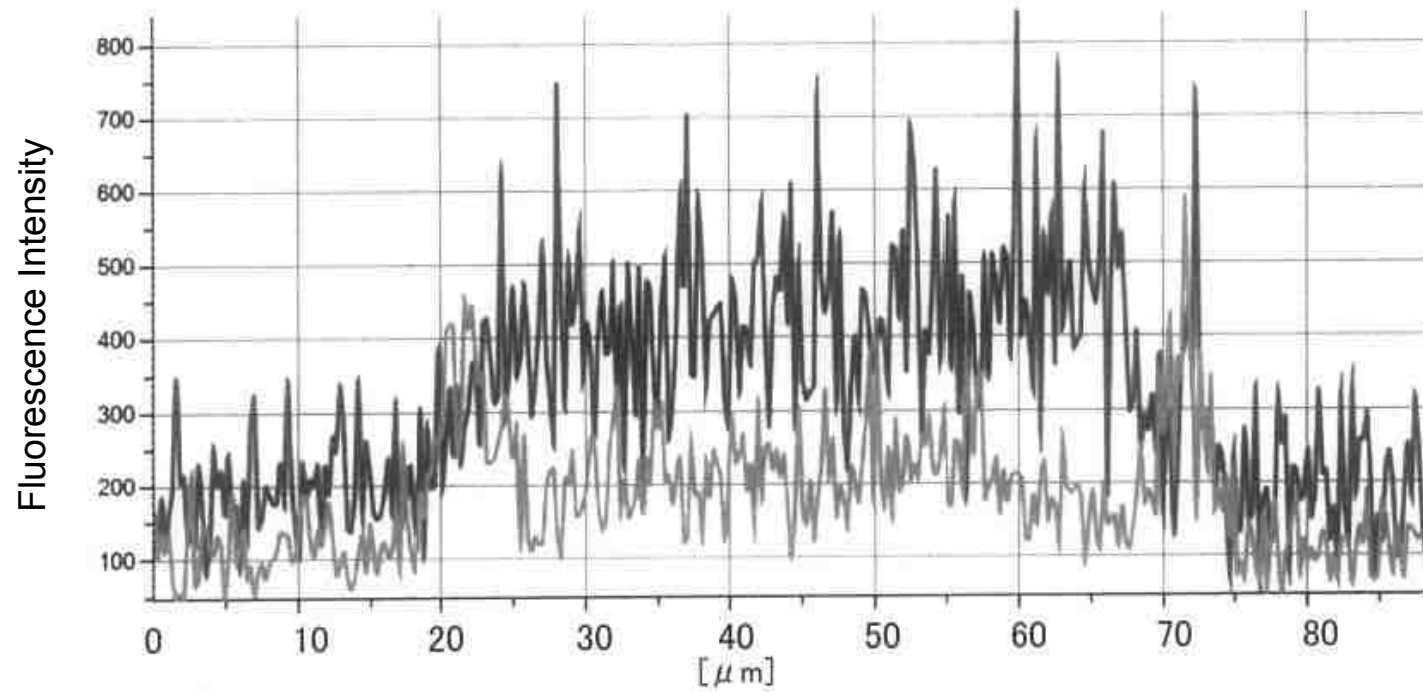


Fig. 10

Outer Solution of Liposome: 1 μ M mCherry-LBPr1 Fusion Protein
Inner Solution of Liposome: 1 μ M Fluorescein amine



mCherry-LBPr1 bound DOPG-Liposome

Fig. 11

Fig. 11A

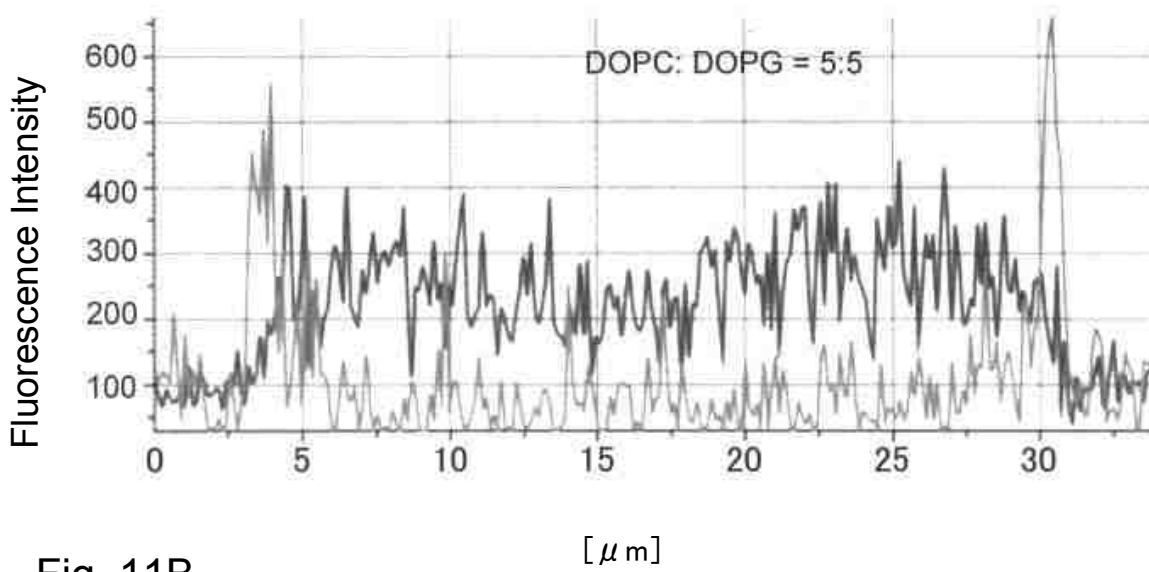


Fig. 11B

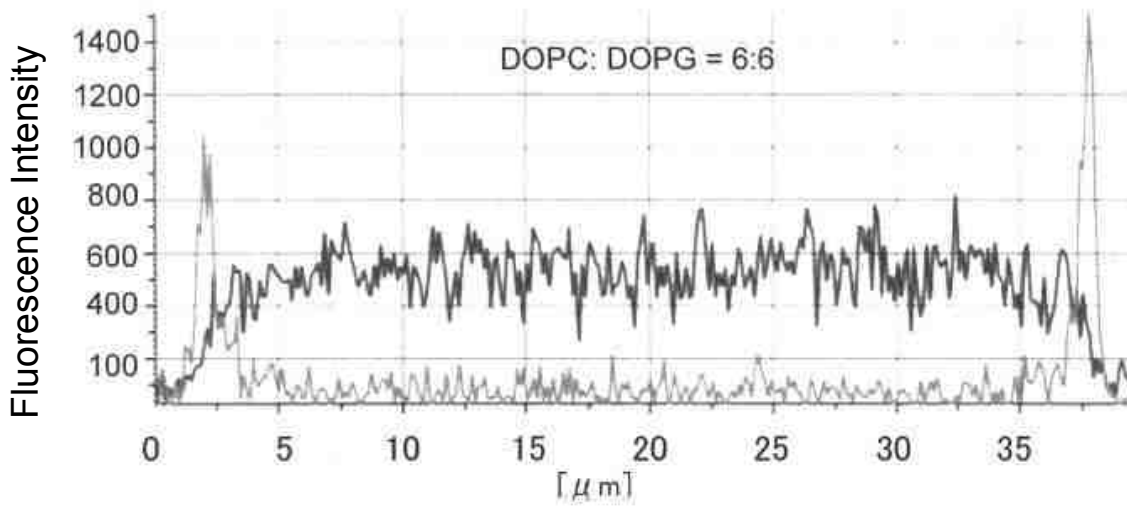


Fig. 11C

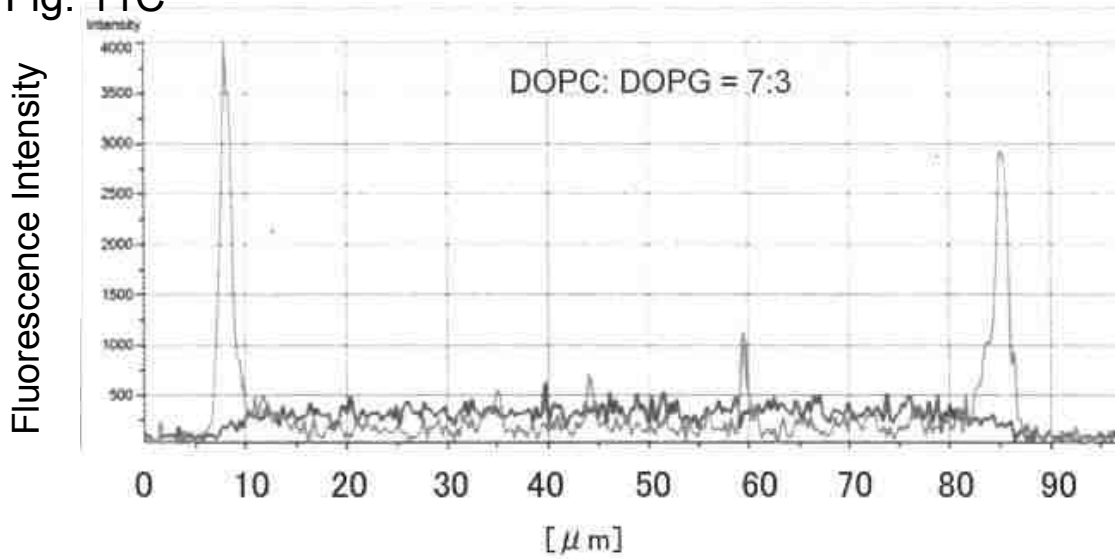


Fig. 12A

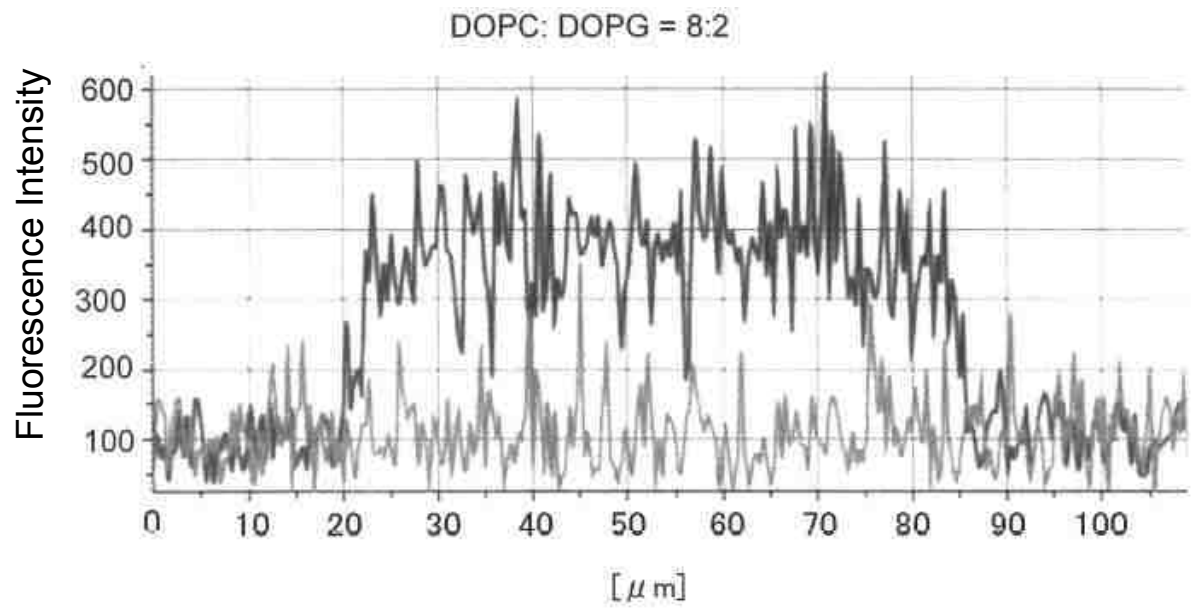


Fig. 12B

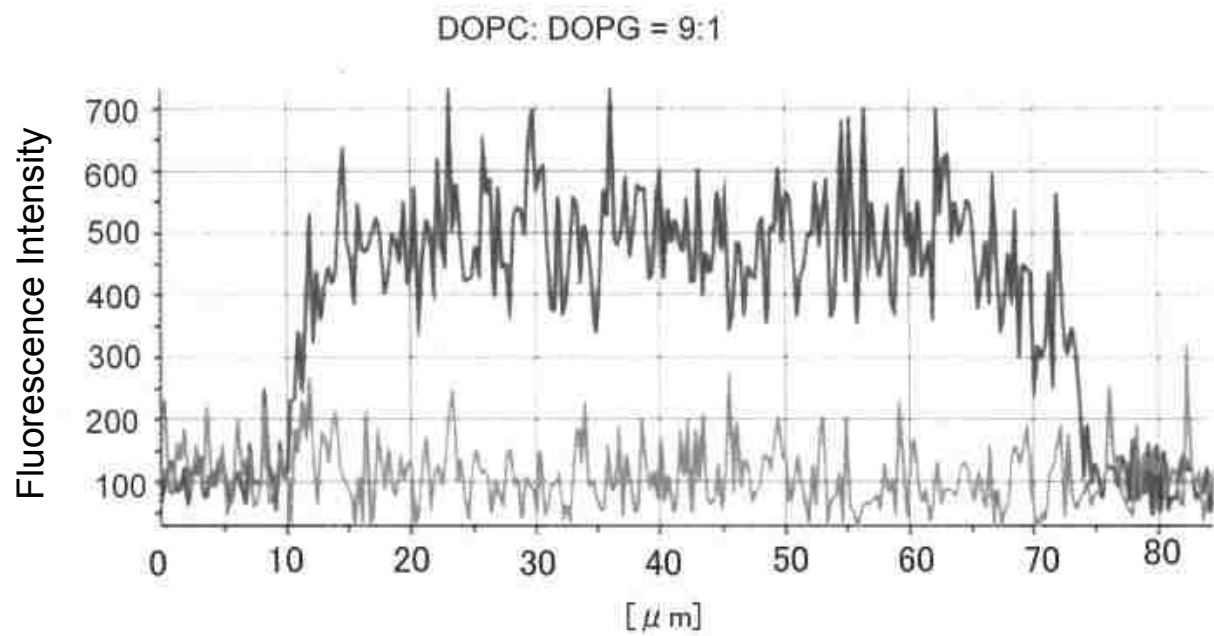


Fig. 13A

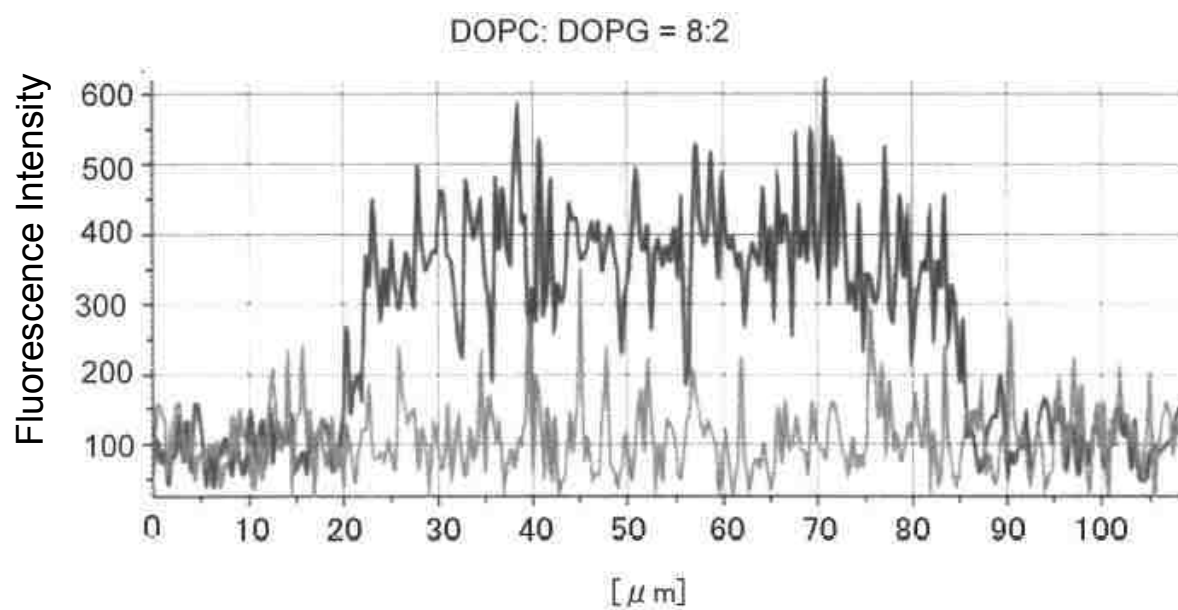
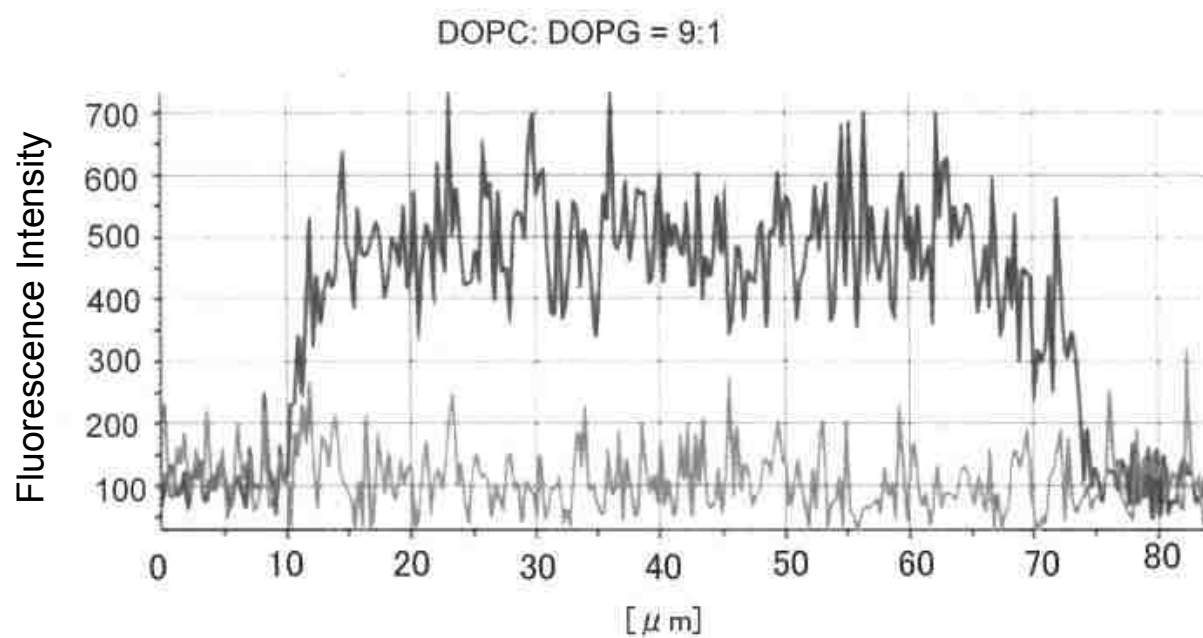


Fig. 13B



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Fig. 14

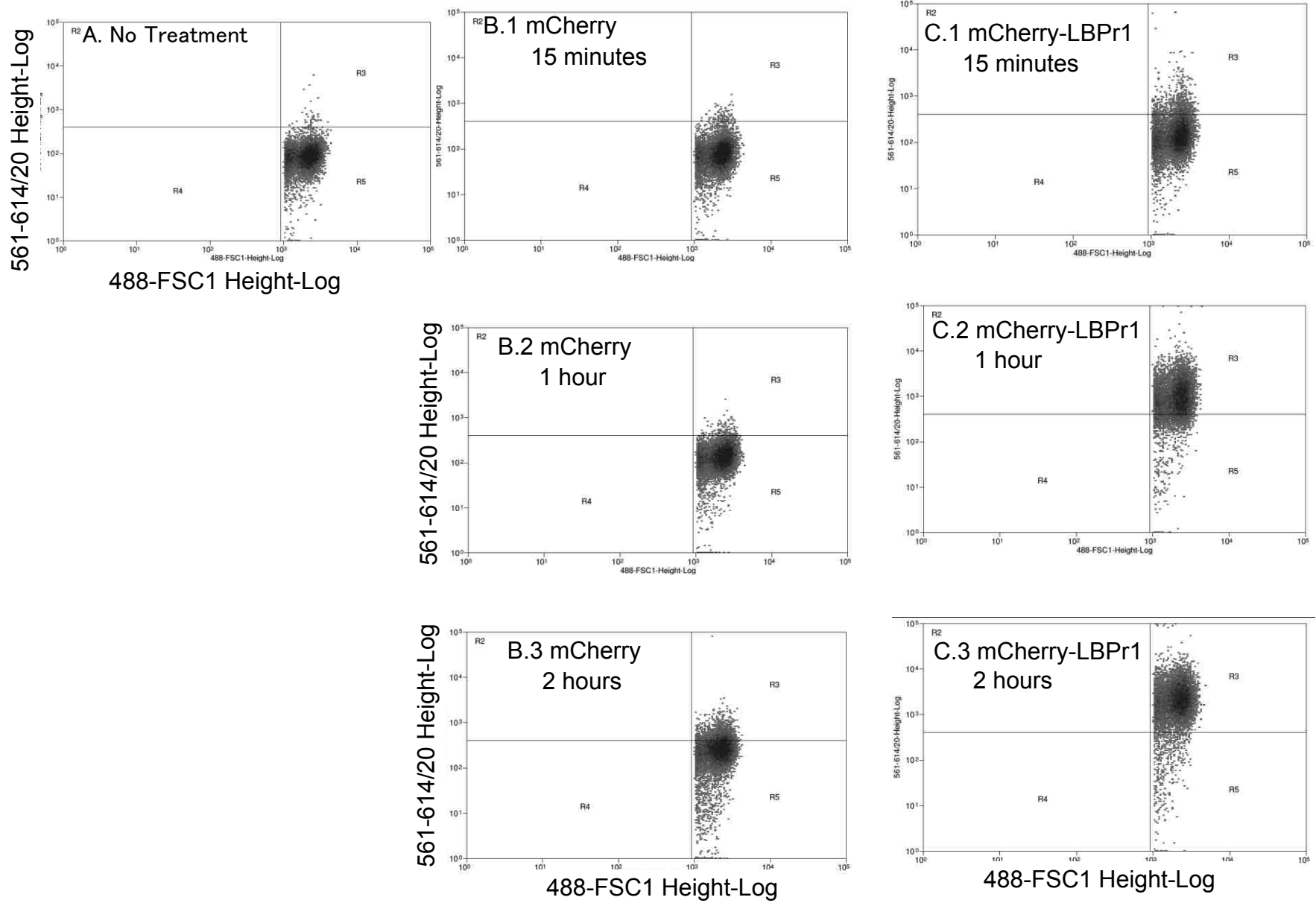


Fig. 15

Confocal microscope observation, after incubation of HeLa cells with mCherry-LBPr1 or mCherry at 37 °C for 5% CO₂ incubator for 2 hours (DMEM(-)), and then washed.

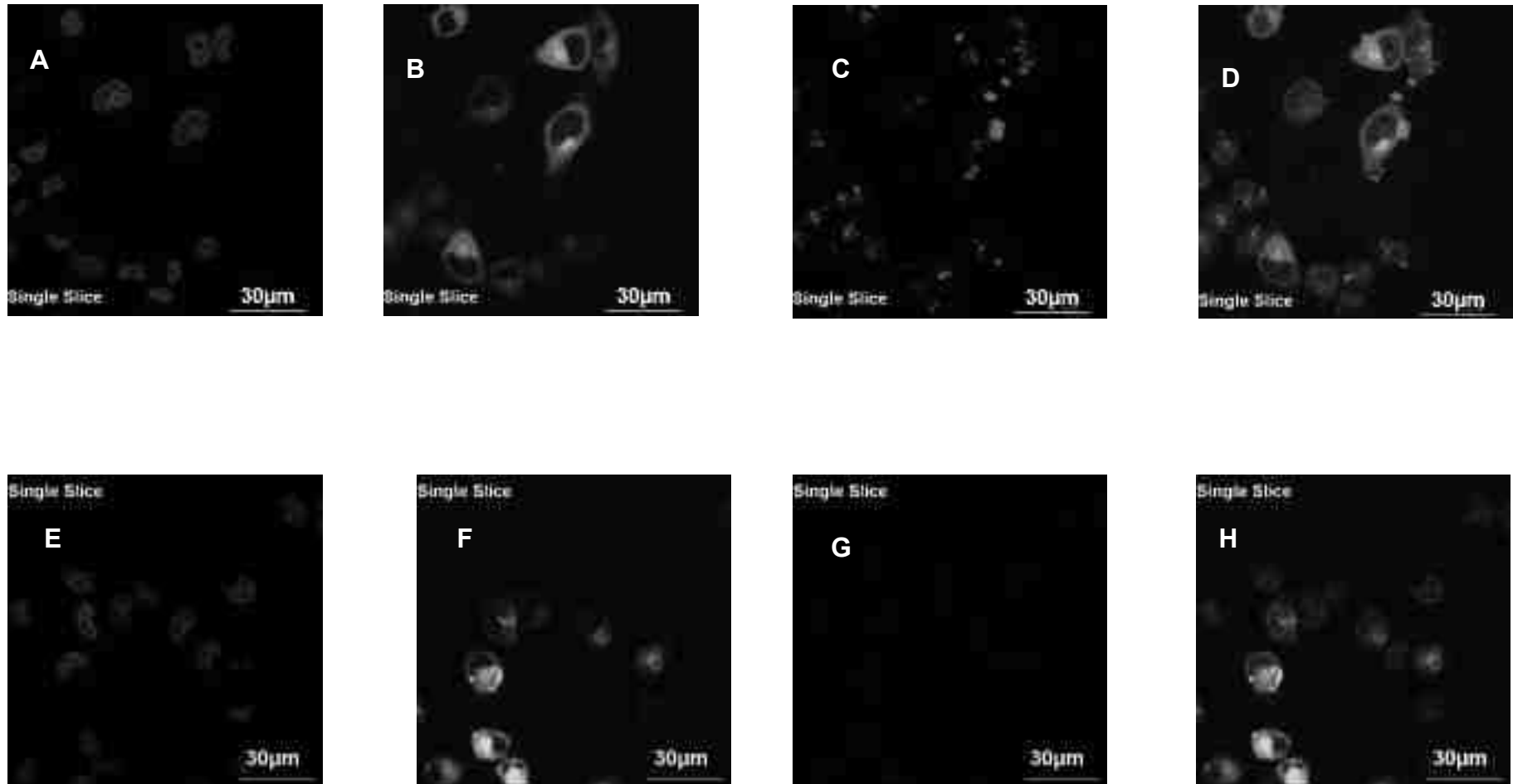
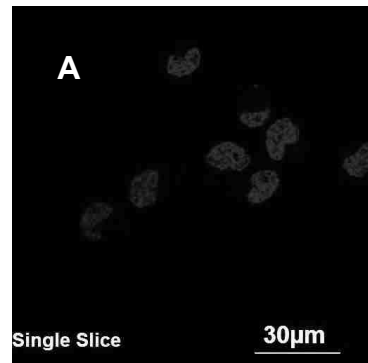
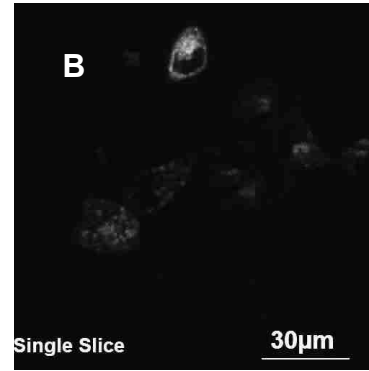


Fig. 16

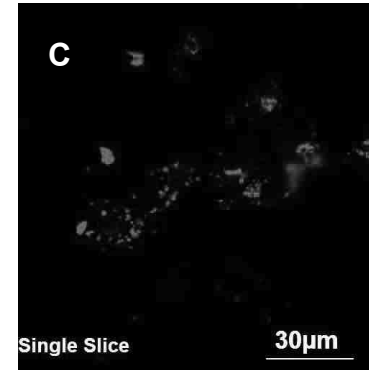
Hoechst 33342 (Nuclei)



EGFP (Late Endosome)



LBPr1-mCherry



Synthesis

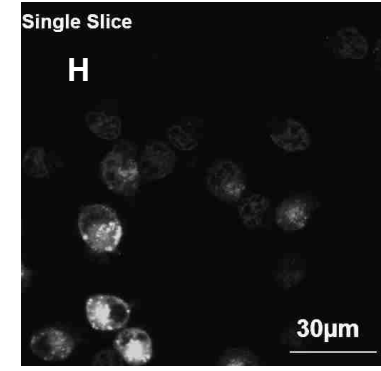
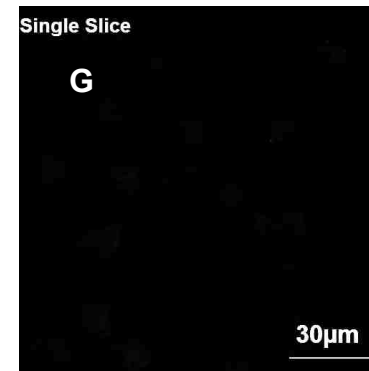
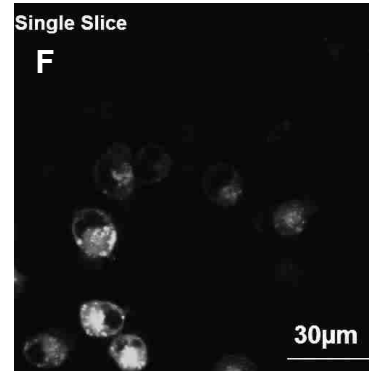
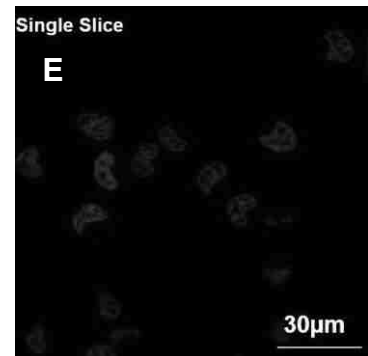
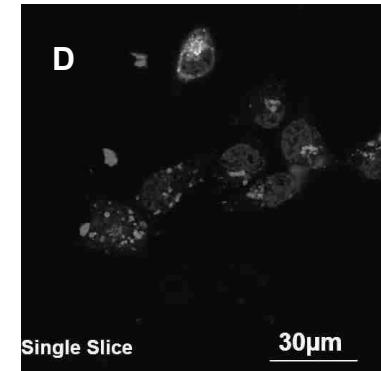


Fig. 17

Fig. 17A

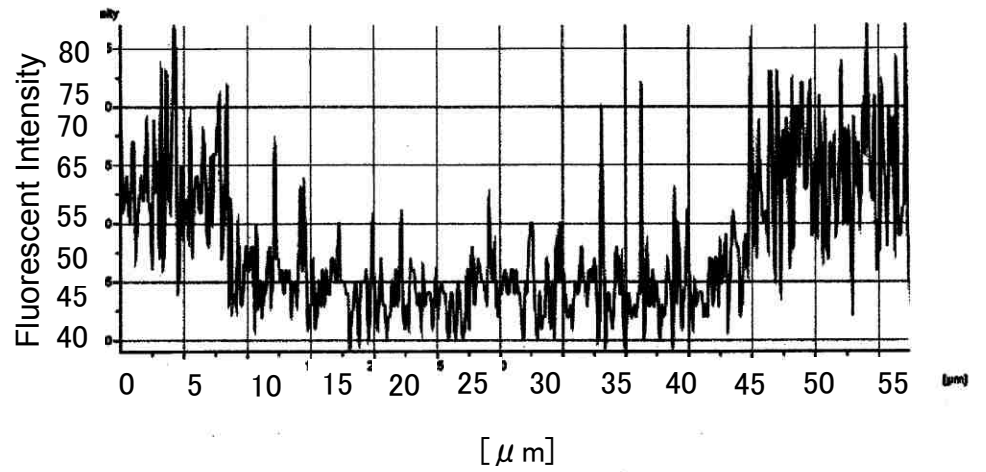
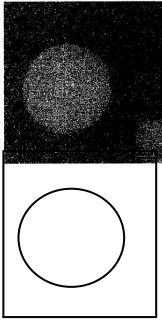


Fig. 17B

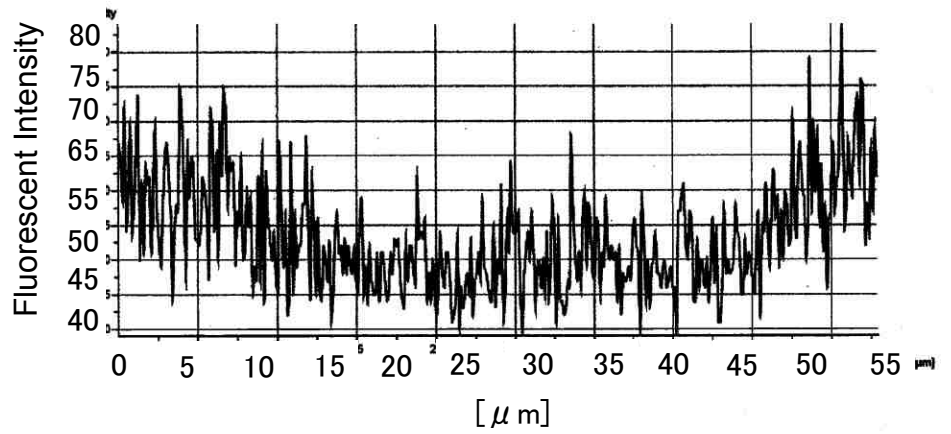
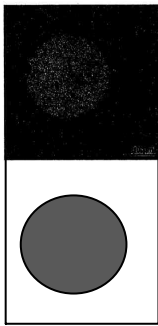


Fig. 17C

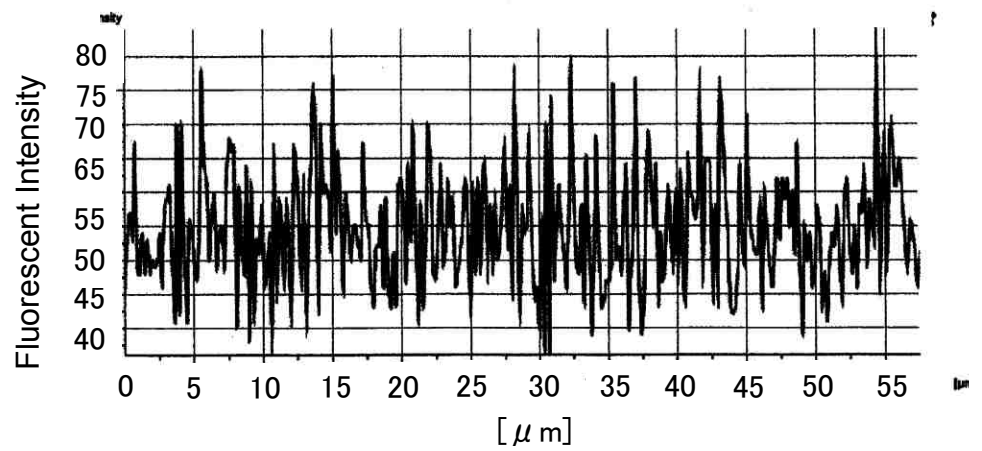
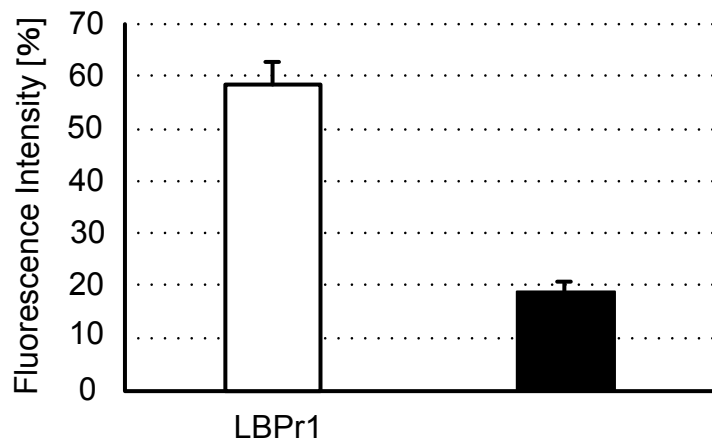


Fig. 18



Fluorescence Intensity ration, when mCherry-LBPr1 Fusion Protein or mCherry in mCherry-R8 Fusion Protein (n=10)