

FIGURES

[Figure 1]

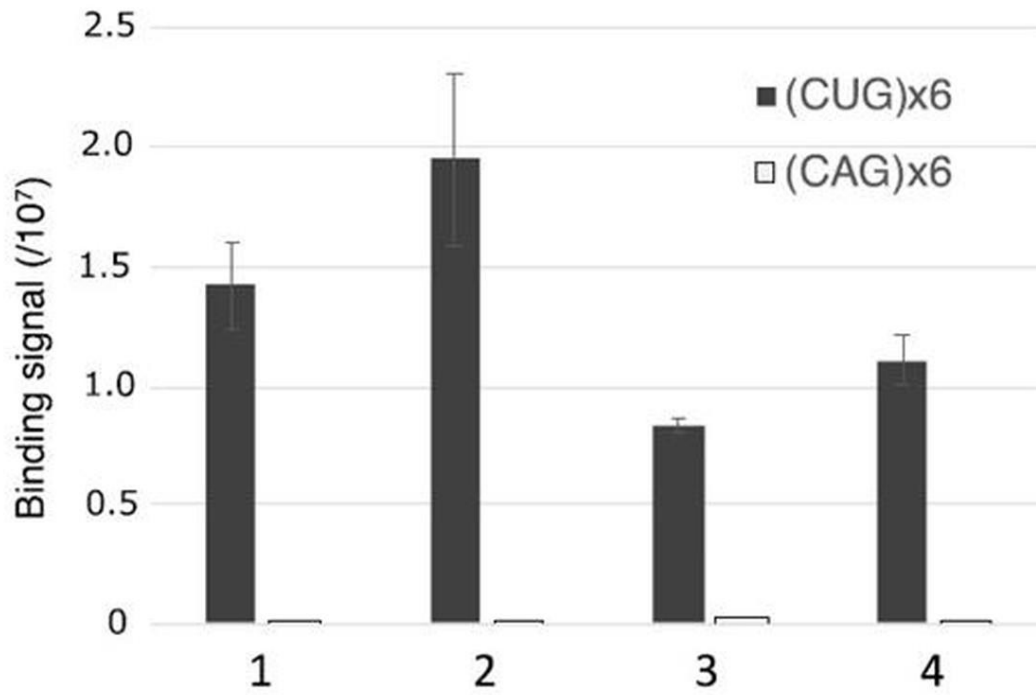


FIG. 1: Binding experiment of CUG-binding PPR protein

1: Luc-CUG-PPR1, 2: Luc-CUG-PPR2, 3: Luc-CUG-PPR3, 4: Luc-CUG-PPR4

[Figure 2]

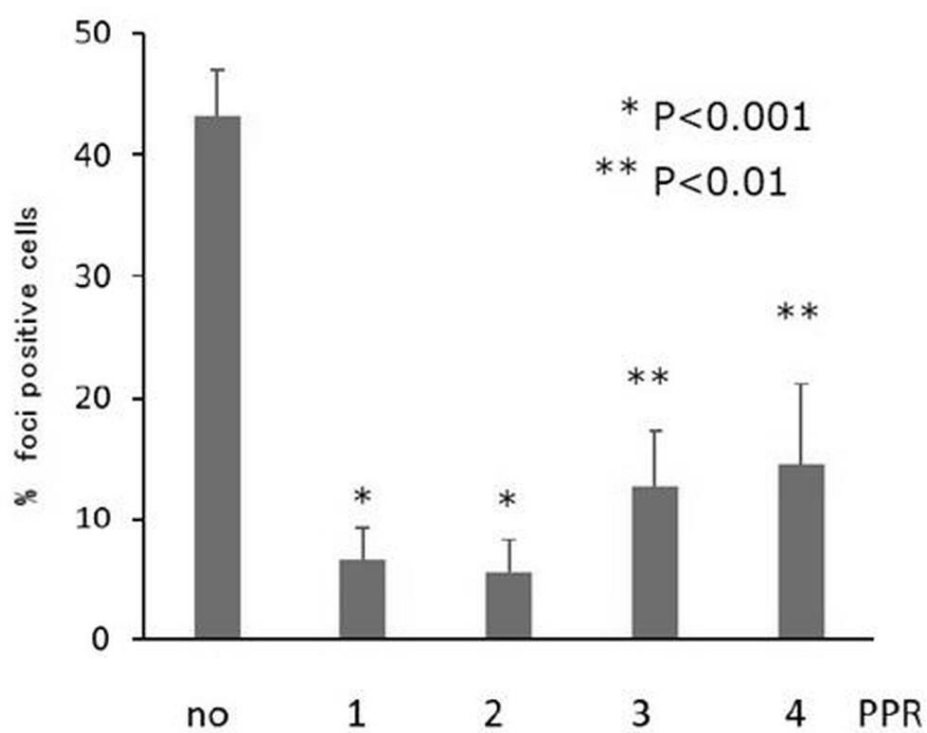


FIG. 2: RNA-foci formation suppression effect

1: mCLO-CUG-PPR1, 2: mCLO-CUG-PPR2, 3: mCLO-CUG-PPR3, 4: mCLO-CUG-PPR4

[Figure 3]

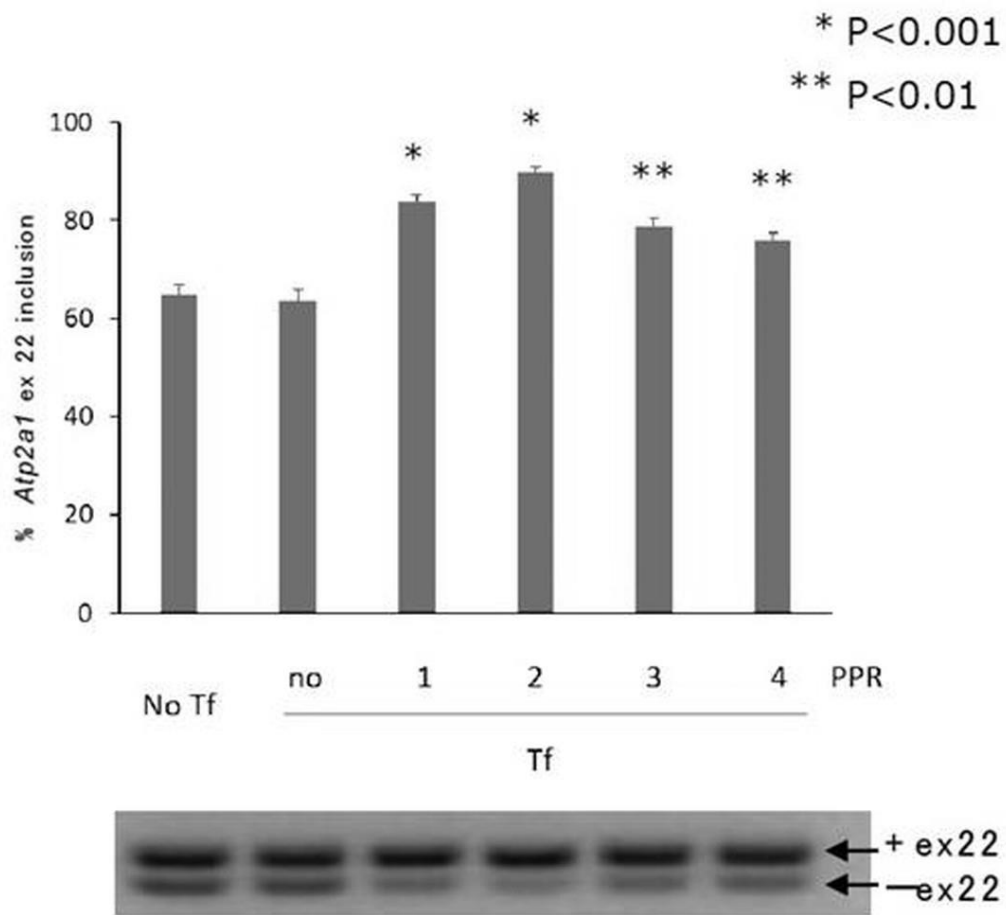


FIG. 3: Effect of PPR action on abnormal splicing of Atp2a1

1: mCLO-CUG-PPR1, 2: mCLO-CUG-PPR2, 3: mCLO-CUG-PPR3, 4: mCLO-CUG-PPR4

[Figure 4]

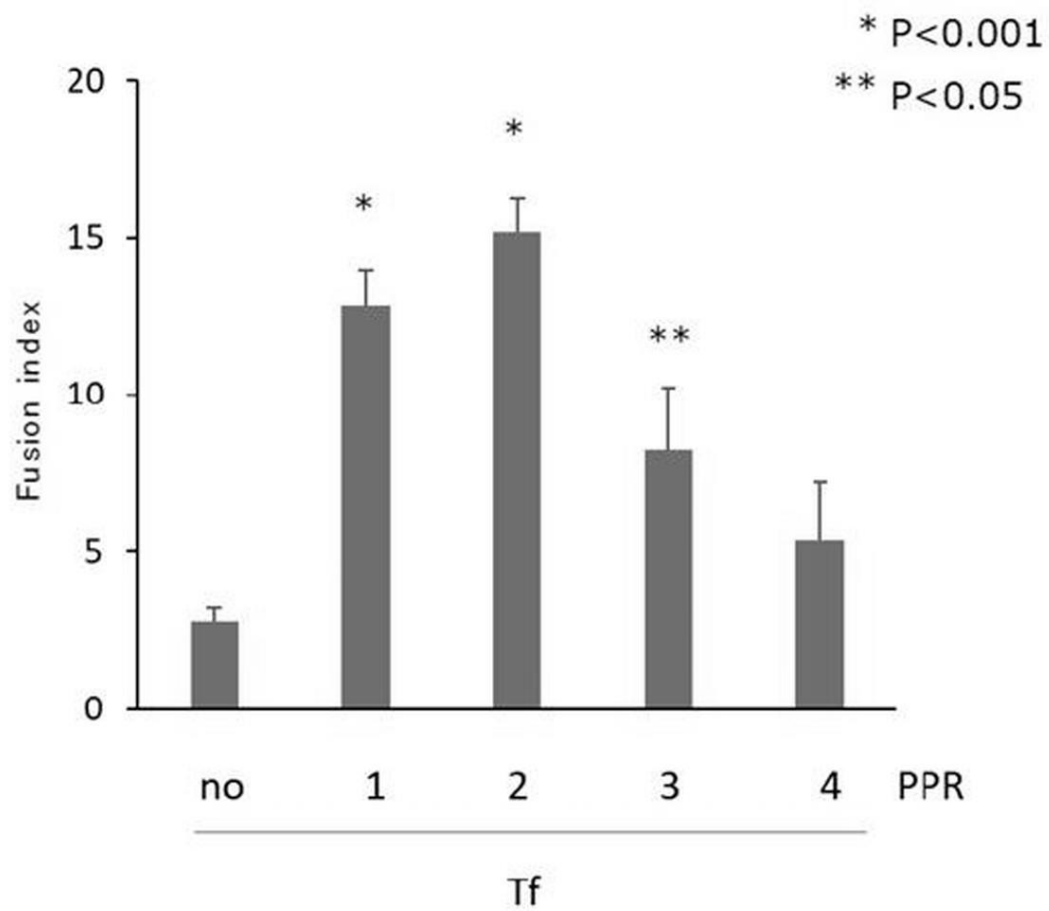


FIG. 4: Verification of muscle differentiation efficiency

1: mCLo-CUG-PPR1, 2: mCLo-CUG-PPR2, 3:mCLo-CUG-PPR3, 4: mCLo-CUG-PPR4

[Figure 5]

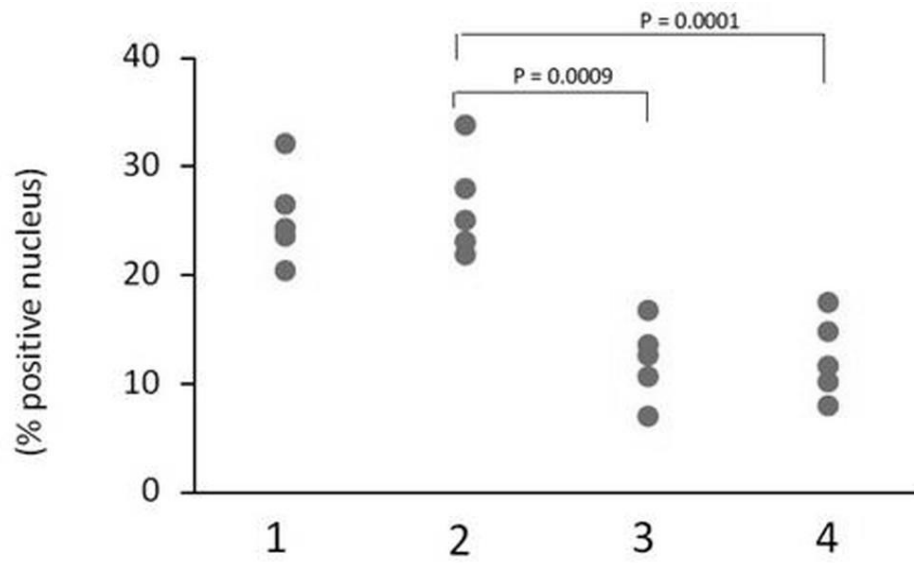


FIG. 5: Verification of RNA-foci formation suppression effect

1: PBS, 2: AAV6-CMV-mCLO-empty, 3: AAV6-CMV-mCLO-CUG-PPR1, 4: AAV6-CMV-mCLO-CUG-PPR2

[Figure 6]

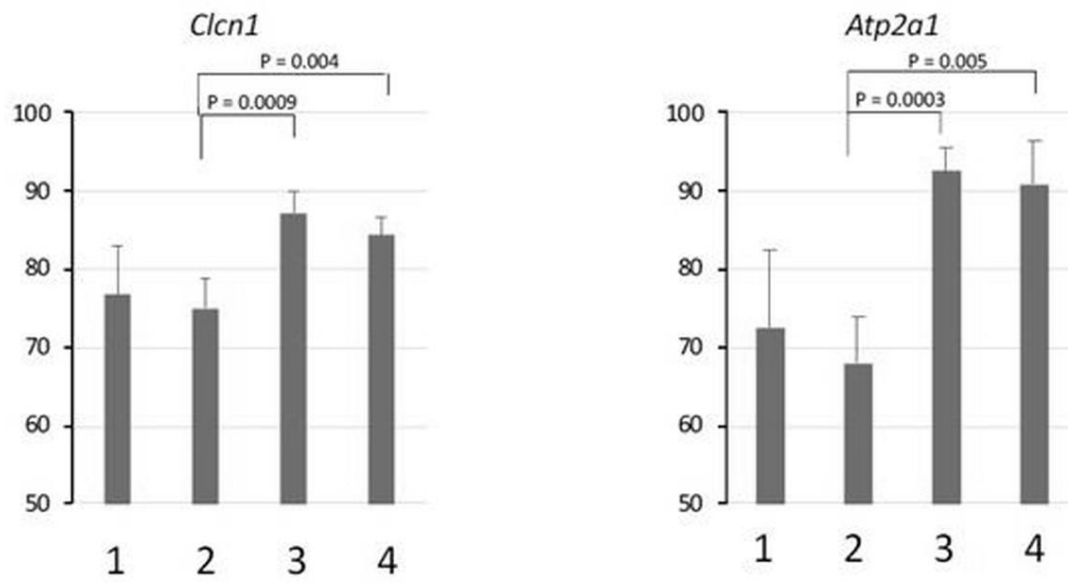


FIG. 6: Verification of abnormal splicing effect

1:PBS, 2: AAV6-CMV-mCLO-empty, 3:AAV6-CMV-mCLO-CUG-PPR1, 4: AAV6-CMV-mCLO-CUG-PPR2

[Figure 7]

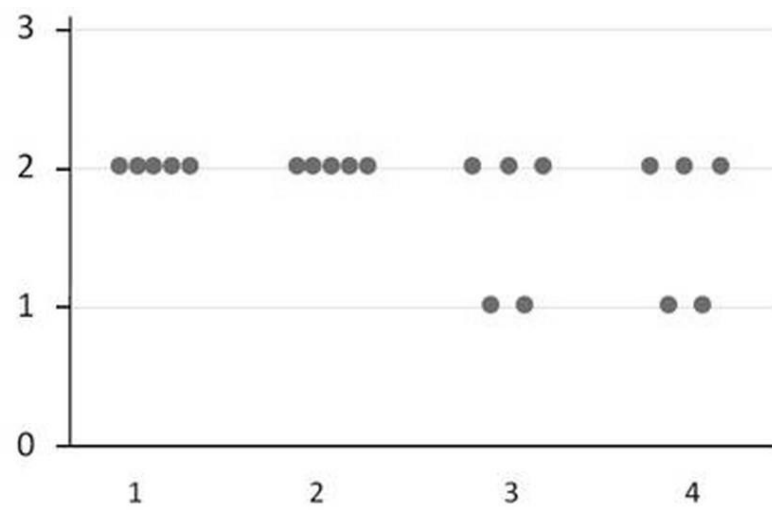


FIG. 7: Effect of PPR on myotonic discharge

1: PBS, 2: AAV6-CMV-mCLo-empty, 3: AAV6-CMV-mCLo-CUG-PPR1, 4: AAV6-CMV-mCLo-CUG-PPR2

[Figure 8]

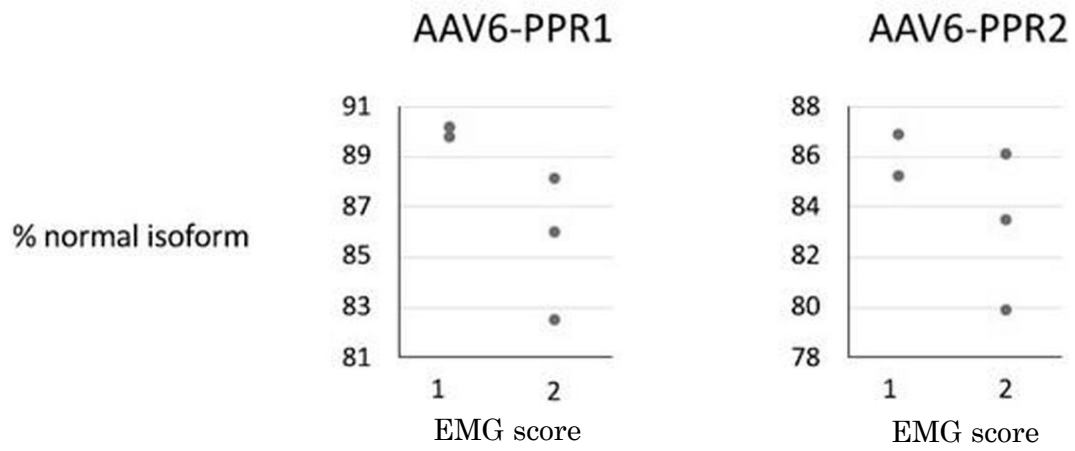


FIG. 8: Correlation between improvement effect of abnormal splicing of Clcn1 gene and EMG score

Left: AAV6-CMV-mCLO-CUG-PPR1, Right: AAV6-CMV-mCLO-CUG-PPR2

[Figure 9]

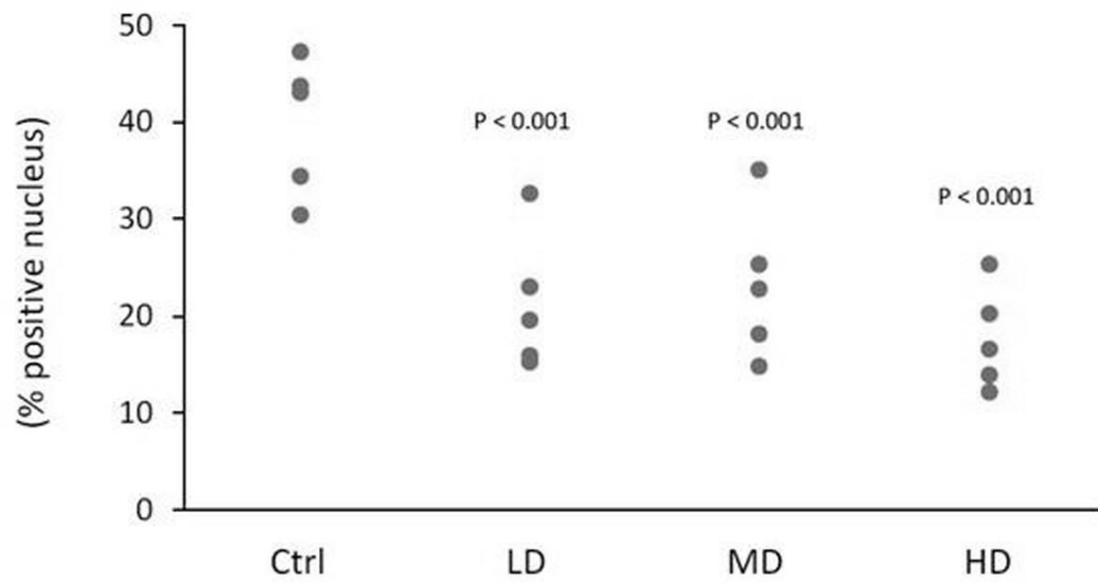


FIG. 9: Dose-dependent RNA-foci formation suppression effect of AAV9-CUG-PPR 1

[Figure 10]

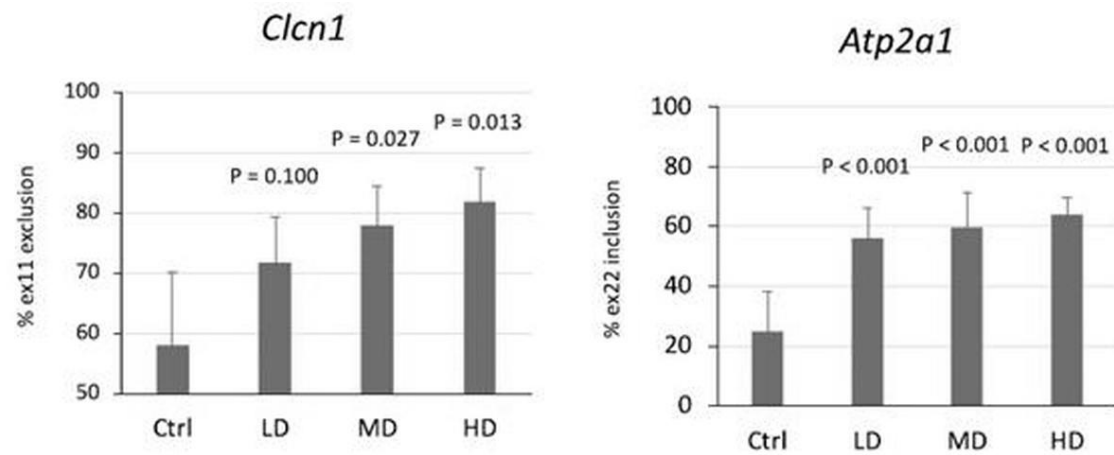


FIG. 10: Dose-dependent abnormal splicing improvement effect of AAV9-CUG-PPR 1

[Figure 11]

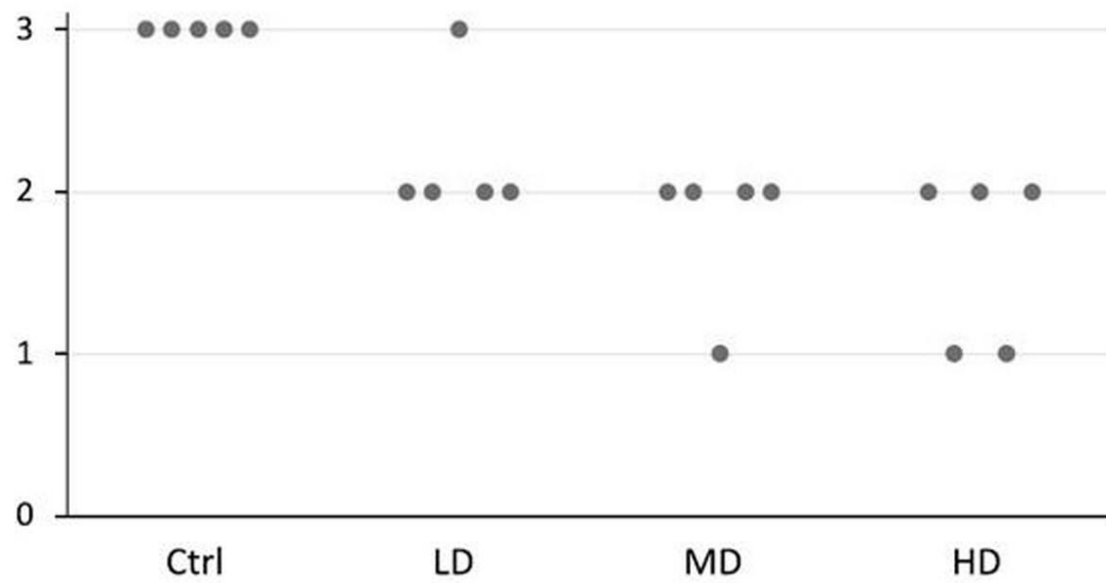


FIG. 11: Dose-dependent myotonic discharge suppression effect of AAV9-CUG-PPR 1

[Figure 12]

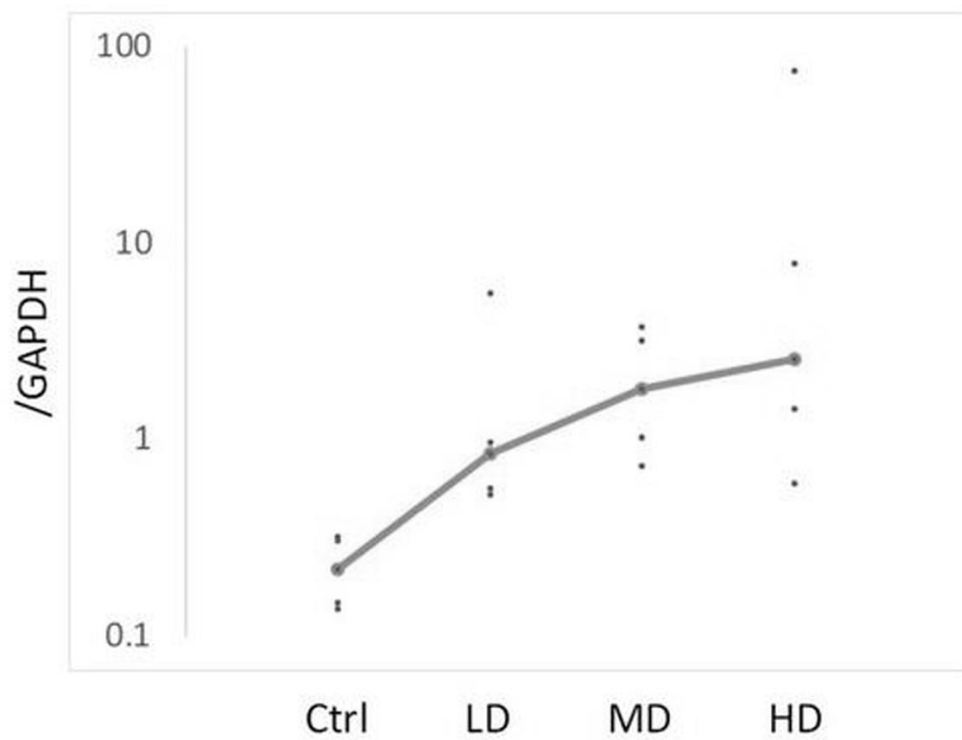


FIG. 12: Relationship between administration dosage of AAV9-CUG-PPR 1 and amount of PPR mRNA expression

[Figure 13]

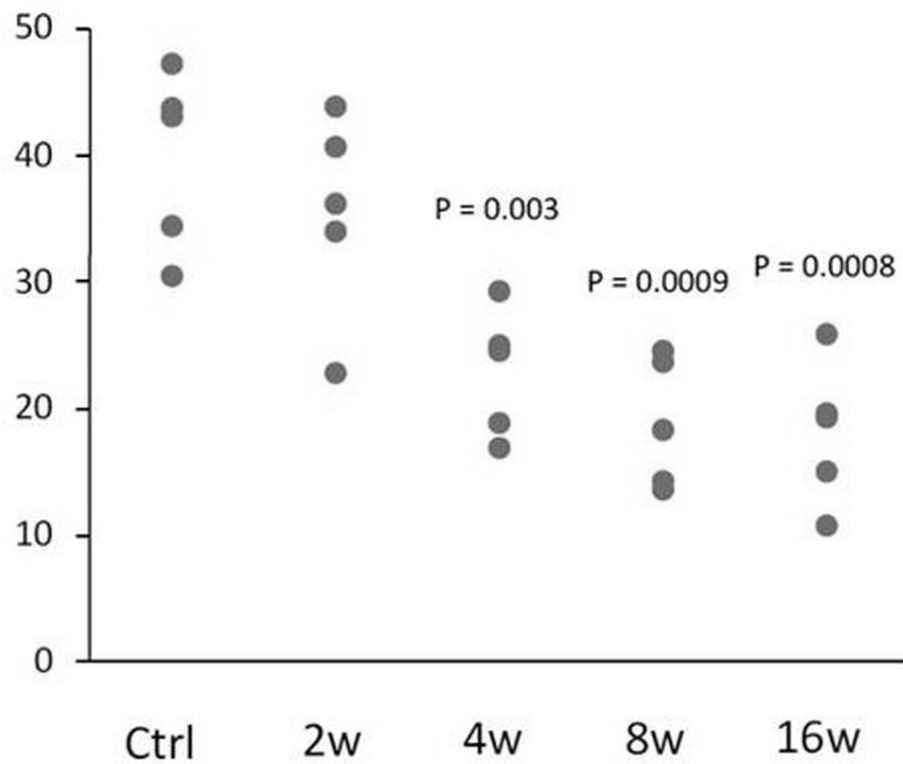


FIG. 13: Time-dependent RNA-foci formation suppression effect of AAV9-CUG-PPR 1

[Figure 14]

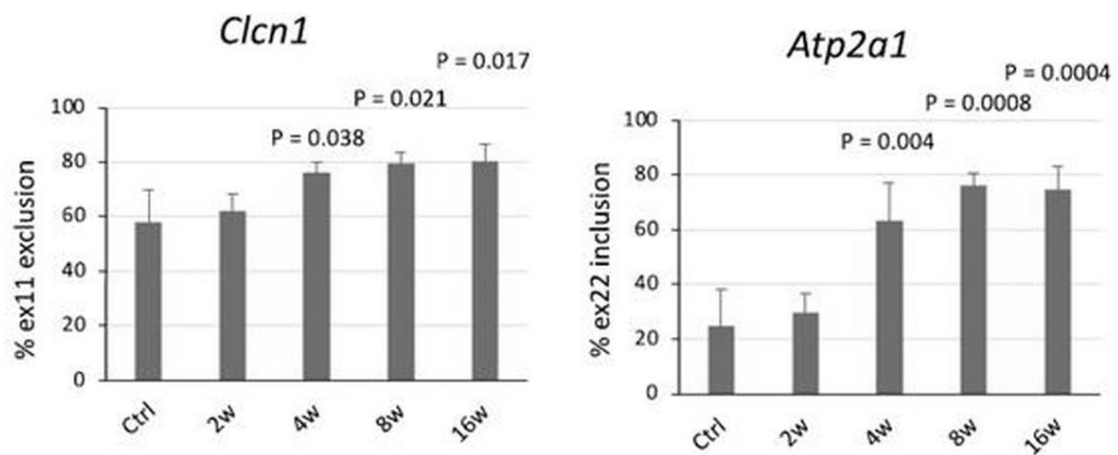


FIG. 14: Time-dependent abnormal splicing improvement effect of AAV9-CUG-PPR 1

[Figure 15]

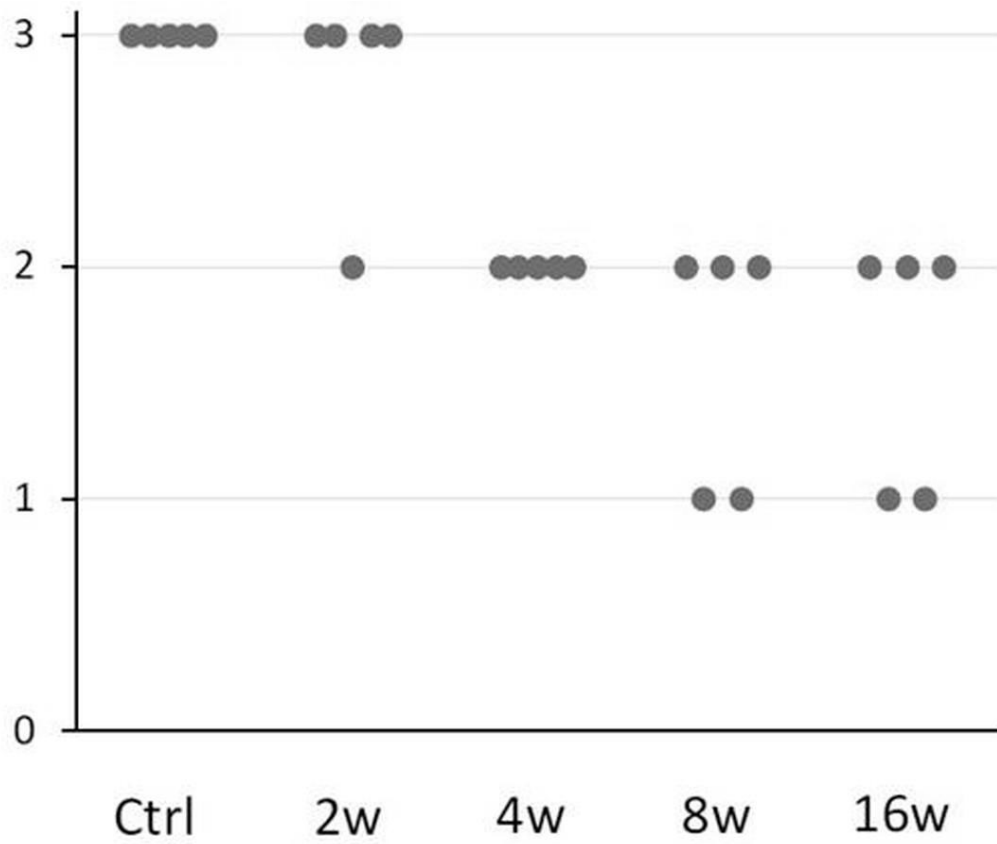
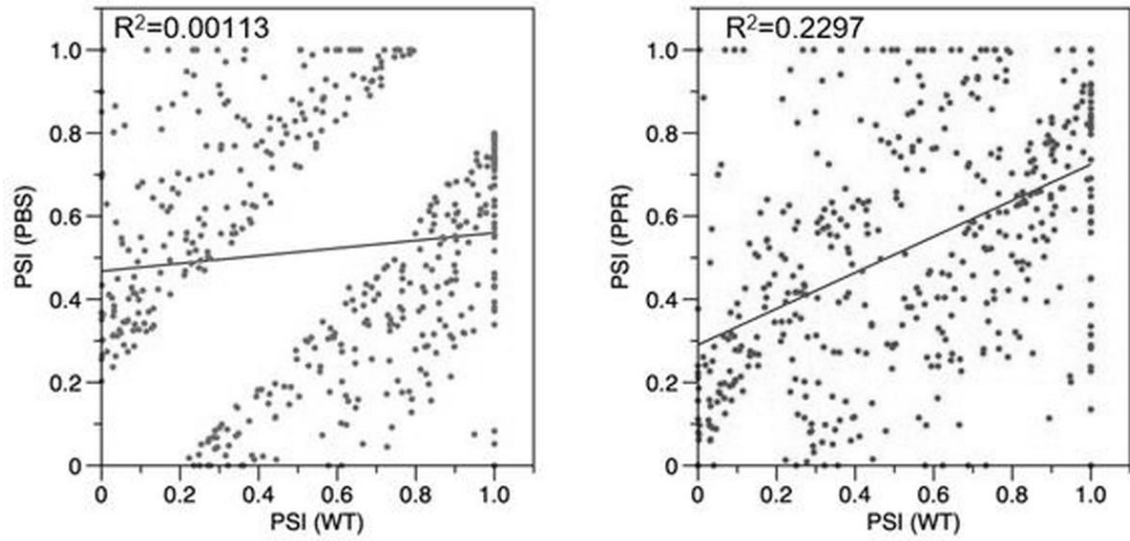
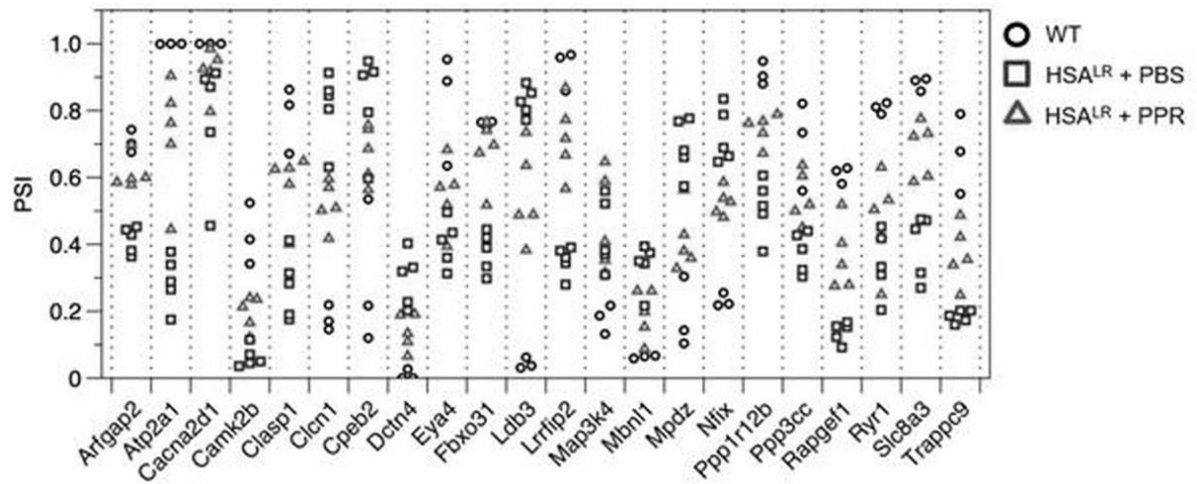


FIG. 15: Time-dependent myotonic discharge suppression effect of AAV9-CUG-PPR 1

[Figure 16a]

a

[Figure 16b]

b

[Figure 16c]

c

	log(P-value)	Number of gene		
		> 50%	≤50%, ≥20%	<20%
GO:0097435 supramolecular fiber organizat	-6.82	12	16	4
R-MMU-397014 Muscle contraction	-5.62	14	17	3
GO:0010256 endomembrane system organizati	-4.77	6	12	1
GO:0120035 regulation of plasma membrane	-4.66	19	12	2
GO:0031116 positive regulation of microtu	-4.22	14	17	1
GO:0031032 actomyosin structure organizat	-3.86	12	7	5
GO:0000381 regulation of alternative mRNA	-3.84	4	8	1
GO:0006468 protein phosphorylation	-3.80	9	12	1
GO:0008347 glial cell migration	-3.50	4	9	0
GO:0034453 microtubule anchoring	-3.44	5	5	1
GO:0030100 regulation of endocytosis	-3.44	7	8	2
GO:0032989 cellular component morphogenes	-3.38	13	14	3
GO:0048312 intracellular distribution of	-3.33	2	4	0
GO:0016482 cytosolic transport	-3.32	4	7	0
GO:0032469 endoplasmic reticulum calcium	-3.31	2	3	0
R-MMU-445355 Smooth Muscle Contraction	-3.31	7	4	3
GO:0008088 axo-dendritic transport	-3.19	0	6	0
GO:2001222 regulation of neuron migration	-3.09	3	2	0
R-MMU-9013424 RHOV GTPase cycle	-2.98	9	5	3
GO:0034622 cellular protein-containing co	-2.93	7	10	3

[Figure 17]

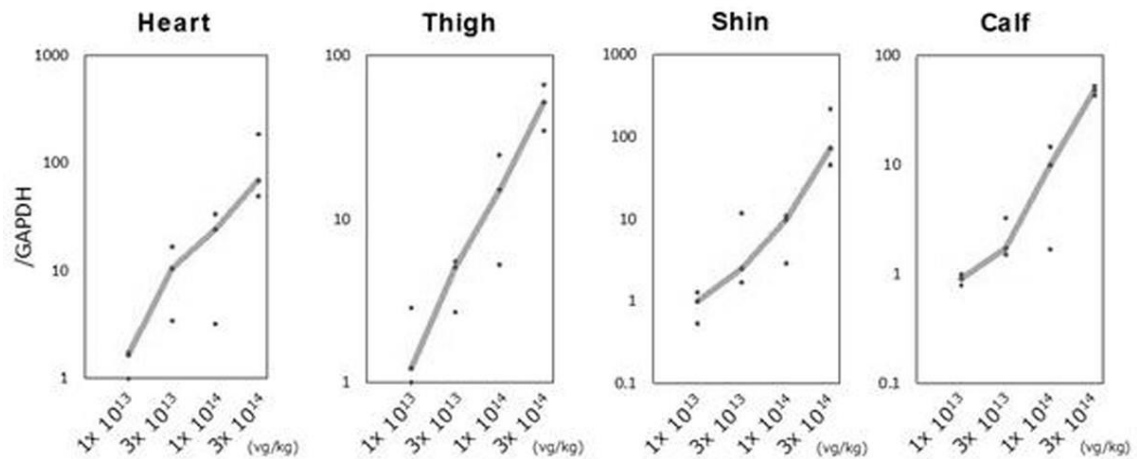


FIG. 17: Amount of PPR mRNA expression in each organ of AAV9-CUG-PPR 1-administered mice

[Figure 18]

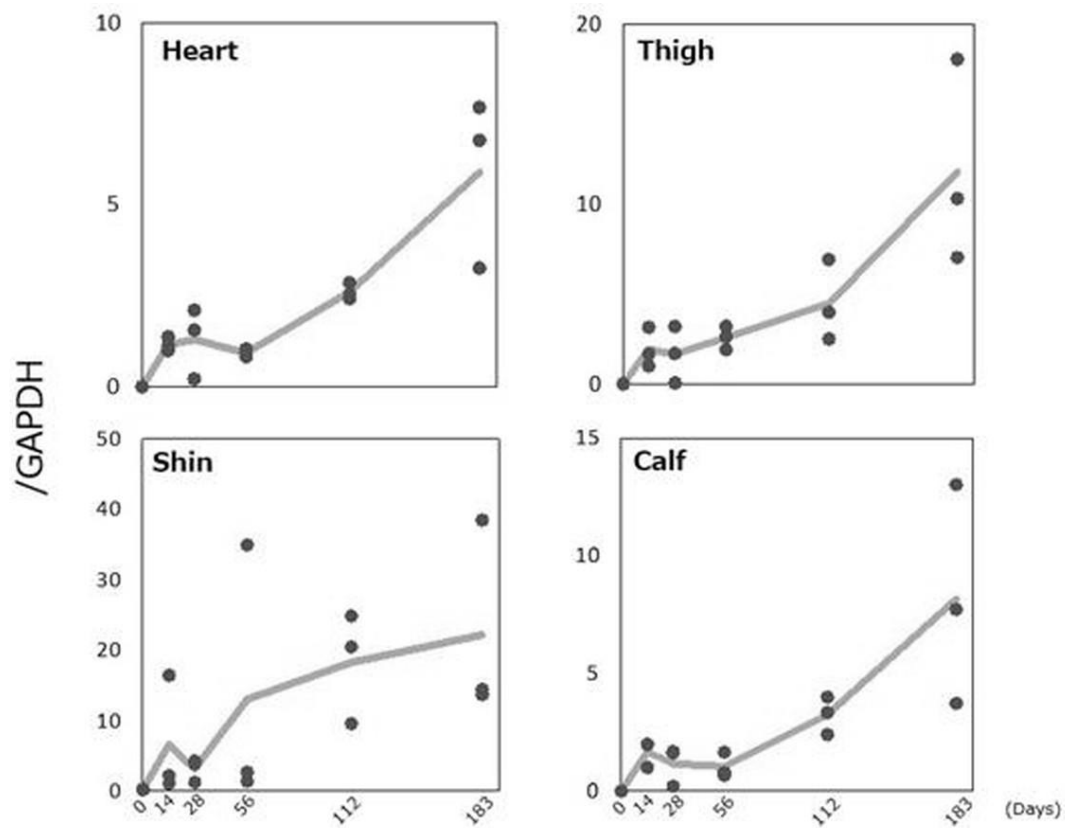


FIG. 18: PPR mRNA expression persistency in each organ of AAV9-CUG-PPR₁-administered mice