

Table S1. Morphometric parameters * of HuCD-labeled and rAAV-transduced neurons ($M \pm SD$) in the brain of juvenile chum salmon, *O. keta*, at 3 months after a single injection of the adenoviral vector.

Brain Area	DAPI Size of Nuclei / Cells, μm	AAV Size of Cells, Nuclei, Granules, μm	Optical Density, UOD	HuCD Cell Size, μm	Optical Density, UOD	AAV + HuCD Size of Cells, Nuclei, Granules, μm	Optical Density, UOD
Cerebellum dorsal matrix zone	$4.5 \pm 0.5 / 3.7 \pm 0.5$						
	$5.1 \pm 0.5 / 4.3 \pm 0.3$	$1.8 \pm 0.2 / 1.4 \pm 0.2$	+++	$5.5 \pm 0.1 / 5.2 \pm 0.2$	+++		
	$7.2 \pm 0.3 / 4.7 \pm 0.2$	$3.9 \pm 0.3 / 4.4 \pm 0.3$	++	$10.3 \pm 0.2 / 9.4 \pm 0.2$	++	$5.4 \pm 0.3 / 4.9 \pm 0.2$	+++
	$11.2 \pm 1.6 / 10 \pm 1.4$	$5.6 \pm 0.2 / 4.8 \pm 0.3$	+++	$14.8 \pm 1.7 / 8.8 \pm 0.6$	++		
Cerebellum lateral area	$2.4 \pm 0.1 / 2.1 \pm 0.2$	$3.6 \pm 0.5 / 3.2 \pm 0.3$	+++				+++
	$2.8 \pm 0.1 / 2.5 \pm 0.1$	$5.1 \pm 0.6 / 3.5 \pm 0.4$	+++	$4.6 \pm 0.5 / 3.2 \pm 0.4$	+++ / ++	$4.9 \pm 0.2 / 3.9 \pm 0.3$	+++
	$3.2 \pm 0.2 / 2.4 \pm 0.2$	$10.5 \pm 0.7 / 2.9 \pm 0.2$	+++	$7.3 \pm 0.8 / 2.8 \pm 0.1$	+++	$6.9 \pm 1.1 / 3.5 \pm 0.5$	+++
Cerebellum basal area	$6.7 \pm 0.3 / 5.9 \pm 0.4$						
	$8.1 \pm 0.5 / 6.6 \pm 0.7$	$6.6 \pm 0.1 / 6.2 \pm 0.4$	+++	$6.1 \pm 0.6 / 4.8 \pm 0.6$	++	$6 \pm 0.5 / 4.9 \pm 0.4$	++
	$8.3 \pm 0.9 / 5.2 \pm 0.5$	$8.2 \pm 0.7 / 5.5 \pm 0.8$	++	$8.5 \pm 0.5 / 5.1 \pm 0.3$	+++	$8.3 \pm 0.7 / 5.3 \pm 0.4$	+++
	$11.9 \pm 2.4 / 7.6 \pm 0.2$	$8.5 \pm 0.4 / 7.4 \pm 0.7$	++				
Optic tectum	$4.2 \pm 0.3 / 3.2 \pm 0.4$	$1.6 \pm 0.2 / 1.3 \pm 0.2$	++				
	$6.3 \pm 0.7 / 3.4 \pm 0.2$	$4.6 \pm 0.7 / 3.6 \pm 0.5$	+ / ++	$9.9 \pm 1.3 / 9.8 \pm 1.2$	+++		
	$10.8 \pm 0.8 / 2.9 \pm 0.1$	$7.4 \pm 0.7 / 5.8 \pm 0.7$	++	$12.3 \pm 1.4 / 9.2 \pm 0.3$	+++	$12.2 \pm 1 / 9.1 \pm 1$	+++
		$11.9 \pm 1.3 / 3.5 \pm 0.4$	+++				
Epithalamus	$5.6 \pm 0.2 / 4.6 \pm 0.3$	$2.8 \pm 0.2 / 2.5 \pm 0.1$	+++				
	$6.7 \pm 0.3 / 5.3 \pm 0.6$	$3.9 \pm 0.5 / 3.4 \pm 0.6$	++	$6.5 \pm 0.7 / 6.1 \pm 0.7$	+++	$9.5 \pm 0.9 / 7.2 \pm 0.4$	+++
	$8.5 \pm 0.6 / 5.4 \pm 0.6$	$6.2 \pm 0.5 / 5 \pm 0.2$	++	$9.4 \pm 0.6 / 7.4 \pm 0.3$	++	$12.2 \pm 0.7 / 9.5 \pm 0.2$	++
		$12.1 \pm 0.5 / 9.3 \pm 0.4$	++ / +++	$11.4 \pm 1.1 / 9.3 \pm 0.8$	+++		+++
Posterior tuberculum area	$4.4 \pm 0.3 / 4.2 \pm 0.4$	$2.7 \pm 0.2 / 2.6 \pm 0.2$	+++	$8.9 \pm 0.9 / 6.8 \pm 0.9$	+++	$8.1 \pm 0.6 / 6.7 \pm 0.5$	++
	$5.8 \pm 0.5 / 4.8 \pm 0.5$	$8.1 \pm 0.9 / 6.6 \pm 0.5$	++	$13.5 \pm 1.3 / 6.9 \pm 0.8$	+++	$12.4 \pm 1 / 6.4 \pm 0.4$	++
		$12.2 \pm 1.2 / 6.7 \pm 0.5$	+	$22.1 \pm 3.5 / 11.2 \pm 2.1$	+++		
<i>Corpus geniculatlim</i>		$2.5 \pm 0.4 / 1.6 \pm 0.3$	++				
	$3.7 \pm 0.3 / 2.9 \pm 0.4$	$3.3 \pm 0.3 / 2.7 \pm 0.7$	++	$3.4 \pm 0.5 / 2.8 \pm 0.6$	+++	$3.2 \pm 0.2 / 2.7 \pm 0.4$	+++
	$5.3 \pm 0.4 / 3 \pm 0.2$	$5 \pm 0.5 / 3.3 \pm 0.3$	+++	$8.7 \pm 0.8 / 7.3 \pm 0.2$	+++	$8.2 \pm 0.6 / 4.6 \pm 0.6$	+++
	$6.2 \pm 0.5 / 4.9 \pm 0.4$	$8.6 \pm 0.5 / 7.5 \pm 0.6$	+++	$11.6 \pm 0.8 / 8.5 \pm 0.8$	+++	$10.6 \pm 0.8 / 7.2 \pm 2.3$	+++
		$15.6 \pm 0.1 / 9.3 \pm 0.2$	++				

<i>Nucleus rotundus</i>			-	4.5 ± 0.5 / 6.6 ± 0.5	+++		
	5 ± 0.1 / 3.6 ± 0.2	2.1 ± 0.2 / 1.6 ± 0.1	++	9 ± 0.8 / 6 ± 0.5	++		
	5.6 ± 0.7 / 4.5 ± 0.3	7.5 ± 0.6 / 6.7 ± 0.5	+++	12.8 ± 1.3 / 7.9 ± 0.7	++ / +++	6.6 ± 0.6 / 3.8 ± 0.4	+++
	6.6 ± 0.8 / 3.2 ± 0.6	10.3 ± 0.2 / 5.2 ± 0.2	++ / +++	14.3 ± 0.8 / 4.4 ± 0.3	++	7.6 ± 0.5 / 6.5 ± 0.7	++
		12.5 ± 0.8 / 6.1 ± 1.3	+++	15.4 ± 1.1 / 7.5 ± 0.3	+++		
				18.4 ± 0.4 / 11 ± 0.7	+++ / ++		
Dorsal thalamus	3.7 ± 0.4 / 3.2 ± 0.4	2.2 ± 0.1 / 1.9 ± 0.3	+++	5.2 ± 0.6 / 4.5 ± 0.4	+++		
	4.9 ± 0.4 / 4 ± 0.4	3.6 ± 0.4 / 3.8 ± 0.4	++	6.7 ± 0.1 / 5.3 ± 0.6	+++	7.9 ± 1.4 / 7.2 ± 0.8	++ / +++
	7 ± 0.6 / 5.3 ± 0.9	4.5 ± 0.3 / 3.7 ± 0.3	+++	7.6 ± 0.4 / 4.4 ± 0.3	+++		
				9.7 ± 0.8 / 7.9 ± 0.2	+++		
Epiphysis	3.6 ± 0.1 / 2.1 ± 0.1			4.6 ± 0.4 / 3.9 ± 0.4	+++	4.2 ± 0.4 / 3.6 ± 0.5	+++
	3.7 ± 0.4 / 3.5 ± 0.3	4 ± 0.3 / 3.4 ± 0.6	+++	5 ± 0.2 / 4.5 ± 0.4	+++	5.1 ± 0.3 / 4.4 ± 0.3	+++
	4.6 ± 0.3 / 3.8 ± 0.4	5.2 ± 0.4 / 4.5 ± 0.4	++ / +++	6 ± 0.5 / 4.6 ± 0.2	++		
	5.6 ± 0.3 / 4.5 ± 0.5						

* Values for the greater and lesser diameters of nuclei or cell bodies.