HSV Strains available through the CNNV:

Viral strain	#	Reporter profile	Promoter	Insertion region	Spread phenotype
H129	414[1]	EYFP, diffusible	CMV	UL37/UL38 intergenic region	Anterograde mainly
H129	424[1]	mRFP, nuclear	UL35 native	Fusion with the N terminus of UL35	Anterograde mainly
H129	772[1]	EGFP, diffusible	CMV	UL26/UL26.5-UL27 intergenic region	Anterograde mainly
H129	768	Brainbow 1.0L	CMV	UL26/UL26.5-UL27 intergenic region	Anterograde mainly
H129	774	EGFP, diffusible mRFP, nuclear	CMV UL35 native	UL26/UL26.5-UL27 intergenic region Fusion with the N terminus of UL35	Anterograde mainly
H129	373[3]	mCherry, diffusible	CMV	UL26/UL26.5-UL27 intergenic region	Anterograde mainly
H129*	ΔTK-TT	dTomato, diffusible; codon modified HSV TK gene	"CAG" synthetic promoter **	Into the H129 TK gene	Anterograde mainly; initial replication conditional upon presence of Cre and expression of modified TK
H129	VC-22[2]	EGFP-NLS	CMV	UL26/UL26.5-UL27 intergenic region	Anterograde mainly
McIntyre	780[3]	mCherry, diffusible	CMV	UL26/UL26.5-UL27 intergenic region	Retrograde

[1] For reference, see Wojaczynski et al. *Brain Struct Funct* 220(3):1395-420, 2015.

[2] For reference, see Pisano et al. *Cell Reports* 36, 109721, 2021

[3] For reference, see O'Dell et al. Brain Res. 2022 Aug 3:148040.

***** The shaded row designates the recombinant strain of H129 developed by Lo and Anderson (*Neuron* 72: 938-50, 2011). Initial replication of the virus is dependent upon Cre recombinase recombination of the lox-stop-lox sequence in the expression cassette so that the codon modified HSV thymidine kinase gene (TK) and the tdTomato reporter are expressed. After Cre recombination, the viral genome is permanently expressing TK and infection will spread to synaptically connected cells. Dr. Anderson has given permission for distribution of this virus through the CNNV.

** Although the whole construct is commonly referred to as the "CAG promoter", it is not a promoter in a strict sense, as it includes a part of the transcribed sequence (two exons and an intron) and enhancer elements. In addition to the CMV immediate early enhancer, the intron of the chicken β-actin gene contains an enhancer element, which is highly conserved among vertebrates.