

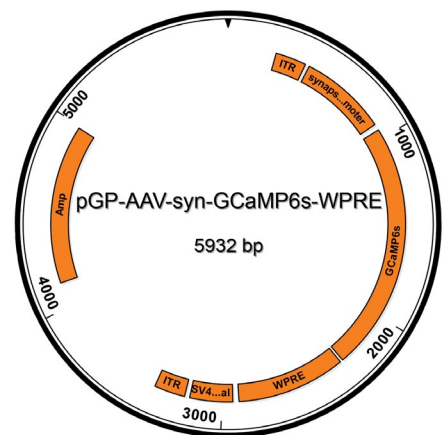


Ready to Use AAV Biosensors

Calcium Indicators - CaMPARI, GCaMP, RCaMP, jRGECO1 | Glutamate Indicators - iGluSnFR

Biosensors are genetically engineered fluorescent proteins (FP) attached to an additional protein sequence which makes them sensitive to small biomolecules (e.g. Ca²⁺). Adeno-associated virus (AAV) Biosensor products come as ready-to-use AAV virus. The viruses encode your chosen biosensor, either calcium or glutamate sensor and are ready for in vivo injection.

AMSBIO offers a range of Calcium or Glutamate Biosensor products that come ready-to-use, with a choice of promoter and the ability to include the Cre inducible (FLEX-ON) expression. We have packaged these indicators into the most commonly used AAV serotypes (AAV8 and AAV9).



1. Decide which biosensor is most suitable for your research question (calcium or glutamate; consider color, kinetics, SNR).
2. Decide whether you would like to include FLEX.
3. Choose a promoter (universal promoter-CAG, or tissue specific neuron specific-synapsin promoter-Syn).
4. Choose the AAV vector serotype (AAV8 or AAV9). Other serotypes are available upon request.

More information on our website!

www.amsbio.com/aav-biosensors.aspx

Biosensor	Description	FLEX (Y/N)	Promoter	AAV	Product Code
Calcium	CaMPARI: Higher-throughput assays with cultured cells	N	Syn	AAV8	BS10-NORAAV8
				AAV9	BS10-NORAAV9
				AAV8	BS10-NXRAAV8
		Y	CAG	AAV9	BS10-NXRAAV9
				AAV8	BS10-CXRAAV8
				AAV9	BS10-CXRAAV9
	GCaMP6s: Improved SNR, slower kinetics; Green indicator	N	Syn	AAV8	BS1-NOSAAV8
				AAV9	BS1-NOSAAV9
				AAV8	BS1-NXSAAV8
		Y	CAG	AAV9	BS1-NXSAAV9
				AAV8	BS1-CXSAAV8
				AAV9	BS1-CXSAAV9
	GCaMP6m: Improved SNR, intermediate kinetics; Green indicator	N	Syn	AAV8	BS2-NOMAAV8
				AAV9	BS2-NOMAAV9
				AAV8	BS2-NXMAAV8
		Y	CAG	AAV9	BS2-NXMAAV9
				AAV8	BS2-CXMAAV8
				AAV9	BS2-CXMAAV9
	GCaMP6f: Improved SNR, faster kinetics; Green indicator	N	Syn	AAV8	BS3-NOFAAV8
				AAV9	BS3-NOFAAV9
AAV8				BS3-NXFAAV8	
Y		CAG	AAV9	BS3-NXFAAV9	
			AAV8	BS3-CXFAAV8	
			AAV9	BS3-CXFAAV9	
GCaMP3: Green indicator	N	CAG	AAV8	BS4-CX3AAV8	
			AAV9	BS4-CX3AAV9	
GCaMP5: Green indicator	N	CAG	AAV8	BS5-PXAAV8	
			AAV9	BS5-PXAAV9	

Biosensor	Description	FLEX (Y/N)	Promoter	AAV	Product Code
Calcium	jRCaMP1a: Red, improved SNR, slower kinetics, bright	N	Syn	AAV8	BS6-NOAAV8
				AAV9	BS6-NOAAV9
				AAV8	BS6-NXAAV8
		Y	CAG	AAV9	BS6-NXAAV9
				AAV8	BS6-CXAAV8
				AAV9	BS6-CXAAV9
	jRCaMP1b: Red, improved SNR, improved dynamic range, bright	N	Syn	AAV8	BS7-NOBAAV8
				AAV9	BS7-NOBAAV9
				AAV8	BS7-NXBAAV8
		Y	CAG	AAV9	BS7-NXBAAV9
				AAV8	BS7-CXBAAV8
				AAV9	BS7-CXBAAV9
	jRGECO1a: Red, improved SNR	N	Syn	AAV8	BS8-NOAAV8
				AAV9	BS8-NOAAV9
				AAV8	BS8-NXAAV8
		Y	CAG	AAV9	BS8-NXAAV9
				AAV8	BS8-CXAAV8
				AAV9	BS8-CXAAV9
jRGECO1b: Red, improved SNR	N	Syn	AAV8	BS9-NOBAAV8	
			AAV9	BS9-NOBAAV9	
			AAV8	BS9-NXBAAV8	
	Y	CAG	AAV9	BS9-NXBAAV9	
			AAV8	BS9-CXBAAV8	
			AAV9	BS9-CXBAAV9	
Glutamate	iGLuSnFR: Rapid detection, improved SNR; direct visualization of synaptic release (as opposed to Ca2+ imaging)	N	CMV	AAV8	BS11-COG-AAV8
				AAV9	BS11-COG-AAV9

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