

Supplementary File 3. Solutions used in calcium imaging studies.

HL3.1, <i>Drosophila</i> saline		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	120
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	32.5
CaCl ₂	1M stock	1.5
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	310	

Zero Ca²⁺ / EGTA HL3.1		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	120
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	32.5
EGTA	380.35	1.5
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	310	

20mM Ca HL3.1		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	101.5
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	32.5
CaCl ₂	1M stock	20
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	310	

Isotonic (modified from <i>Drosophila</i> saline to maintain ionic balance across osmolarities)		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	90
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	92.5
CaCl ₂	1M stock	1.5
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	310	

85% Hypoosmotic		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	90
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	46.5
CaCl ₂	1M stock	1.5
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	264	

70% Hypoosmotic		
Compound	M.W. (g/mol)	1X Concentration (mM)
NaCl	58.44	90
KCl	74.55	5
Proline	115.13	5
HEPES	238.30	10
Trehalose	378.33	5
Sucrose	342.30	0
CaCl ₂	1M stock	1.5
MgCl ₂	1M stock	1
pH (with NaOH)	7.15	
Osmolarity (mOsm/L)	217.5	