

Example 1

First set simulation parameters:

Simulation Numeric Protocol Actin Myosin Geometry

SIMULATION

xb_model: Constant Stiffness

model: Duke

random_seed: 1

numerics: Monte Carlo

Printing results in steps? No

Set Constant stiffness to 1.3:

ConstantStiffness

krutost(k): 1.3 pN/nm

Default values Save Cancel

Set Duke parameters:

Duke

Duke Slow Duke Fast

D: 10.5 nm

GBind: 2 nm

GStroke: 15 nm

delta: 1 nm

ener_cycle: 24.16 nm

kBT: 4.14 nm

k_12: 1000 nm


k_21_cap: 100 nm

k_adp: 35 nm

k_bind: 180 nm

Default values Save Cancel


Set Numeric parameters

Simulation **Numeric** Protocol Actin Myosin Geometry 

NUMERIC

muscle_type: <input type="text" value="Skeletal"/>	caActivationModelIndicator: <input type="text" value="Kb"/>
activation: <input type="text" value="None"/>	geometry: <input type="text" value="Vertebrae"/>
filaments: <input type="text" value="10"/>	half/full sacromere: <input type="text" value="Half Sacromere"/>


Set Actin Geometry parameters:

Simulation Numeric Protocol **Actin** Myosin Geometry 

ACTIN

a_actin1: <input type="text" value="38.5"/> nm ²	a_actin2: <input type="text" value="38.5"/> nm ²
actin_period: <input type="text" value="13"/>	dx_actin: <input type="text" value="2.735"/> nm
e_actin1: <input type="text" value="1689"/> pN/nm ²	e_actin2: <input type="text" value="1689"/> pN/nm ²
length_actin: <input type="text" value="750"/> nm	a_offset: <input type="text" value="75"/> nm
d_actin_myosin: <input type="text" value="24.67"/>	radius_actin: <input type="text" value="5"/> nm


Set Myosin geometry parameters:

Simulation Numeric Protocol Actin **Myosin** Geometry 

MYOSIN

a_myosin: <input type="text" value="196.07"/> nm ²	dx_myosin: <input type="text" value="14.3"/> nm
e_myosin: <input type="text" value="673.23"/> pN/nm ²	myosin_crowns: <input type="text" value="50"/>
fastHeads_percent: <input type="text" value="100"/> %	slowHeads_percent: <input type="text" value="0"/> %
myosin_offset: <input type="text" value="88"/> nm	radius_myosin: <input type="text" value="7.9"/> nm

Set Overall geometry parameters:

Simulation Numeric Protocol Actin Myosin **Geometry** 


GEOMETRY

nebulinDeficiency: 0 1 2

xamax: nm

titin:

And finally set protocol file:

Simulation Numeric **Protocol** Actin Myosin Geometry 

PROTOCOL

time: s

dt: s

tip:

funkcija:

a: nm

[Add data to a table](#)

Protocol Upload file...

Time	dt	Tip	Funkcija	a	b	c	d	Delete	Edit
0	0.00001	Pomeranje	Konstantna	0					
0.5	0.00001	Sila	Konstantna	0					
0.7	0.00001	Sila	Konstantna	0					

Now, you can save example and run it. Good luck!

Save calculation

Run calculation