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SUPPORTING INFORMATION

Luciferase isozymes from the Brazilian *Aspisoma lineatum* (Lampyridae) firefly: Clues on the origin of efficient pH-sensitive lantern´s luciferases from fat body pH-insensitive ancestrals

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Supporting table S1. Species and GenBank accession number of luciferase primary sequence used in this study

Species	**Accession number**
Fulgeochlizus bruchi	NA
Pyrearinus termitilluminans	AF116843.1
Pyrophorus plagiophthalmus	AAQ11735.1
Photophorus jansonii	AB767301.1
Agrypnus binodulus luciferase-like enzyme	BAF96580.1
Photinus pyralis	AB644228.1
Macrolampis sp.2	NA
Lucidina biplagiata	AB535101
Cratomorphus distinctus	AY633557
Lampyris turkestanikus	AY742225
Pyrocoelia atripennis Luc1	LC215693.1
Pyrocoelia rufa	AF328553.1
Pyrocoelia pectoralis	EF155570.1
Pyrocoelia pygidialis	EU826678
Amydetes vivianii	NA
Luciola mingrelica	S61961.1
Luciola parvula Luc1	L39929.1
Luciola unmusana	AF420006.1
Luciola italica	DQ138966.1
Lampyroidea maculata	DQ137139.1
Luciola terminalis	EU302126.1
Luciola cruciata Luc1	M26194.1
Luciola lateralis Luc1	X66919.1
Photuris pennsylvanica Luc1	D254416.1
Drilaster axillaris	AB604790.1
Stenocladius azumai	AB644225.1

Ciphonocerus ruficollis	AB5604789.1
Pyrocoelia atripennis Luc2	LC215694.1
Luciola cruciata Luc2	AB490793.1
Luciola lateralis Luc2	AB693934.1
Luciola parvula Luc2	AB812879.1
Photuris pennsylvanica Luc2	U31240.1
Phrixothrix vivianii	AF139644.1
Taxinomastinocerus sp.	NA
Brasilocerus sp.	FJ545728.1
Zophobas morio	NA

$$Imax = QY.\,kcat.\,[Et]$$

$$I0 = QY.\,kcat.\,[ES]$$

$$Imax \sim Vmax$$

$$I0 = V0$$

Supporting Equation 1. Relationships between luminescence intensity and Velocity: (Imax) maximum intensity; (I_0) Initial intensity; (QY) Quantum yield; (k_{cat}) catalytic constant; ([Et]) total enzyme concentration; ([ES]) enzyme-substrate complex concentration; (Vmax) maximum velocity and (V0) initial velocity.