Validation of loop-mediated isothermal amplification for the detection of Loa loa infection in Chrysops spp in experimental and natural field conditions

Glory Ngongeh Amambo, Raphael Awah Abong, Fanny Fri Fombad, Abdel Jelil Njouendou, Franck Nietcho, Amuam Andrew Beng, Ritter Manuel, Mathias Eyong Esum, Kebede Kassaye, Jerome Fru Cho, Peter Ivo Enyong, Catherine Poole, Achim Hoerauf, Clotilde Carlow, Samuel Wanji

Published in
Parasites and Vectors

Link to external publisher version
https://doi.org/10.1186/s13071-020-04506-3

Colorimetric LAMP Protocol for the detection of *L. loa*

1. 25X Primer Mixes:

[g]Standard Primers	Volume (µl)	25X concentration	1X concenration
100 µM FIP	40	40 µM	1.6 µM
100 µM F3	5	5 µM	0.2 µM
100 µM BIP	40	40 µM	1.6 µM
100 µM B3	5	5 µM	0.2 µM
H_2O	10	----	----
Total Volume	100	----	----

[g]Loop Primers	Volume (µl)	25X concentration	1X concentration
100 µM LF	10	10 µM	0.4 µM
100 µM LB	10	10 µM	0.4 µM
H_2O	80	----	----
Total Volume	100	----	----

2. Colorimetric LAMP reactions:

Components	Volume (µl)
2X Warmstart colorimetric Master mix	12.5
25X Standard Primer mix	1
25X Loop primer mix	1
[i]Substrate DNA	2
H_2O	8.5
Total Volume	25

a. 100 µM primer stocks are prepared in H_2O to minimize carry over of Tris.

b. LAMP reactions are incubated in a GeneAmp®, PCR System 9700 Applied Biosystems @ 61°C for 40 min as described in the Materials and Methods.

c. Substrate DNA can be dissolved in either elution buffer or H_2O.