

Table of Contents

Article Archive

- VETMED (63) 2018
- VETMED (62) 2017
- VETMED (61) 2016
- VETMED (60) 2015
- VETMED (59) 2014
- VETMED (58) 2013
 - Issue No. 1 (1-55)
 - Issue No. 2 (57-112)
 - Issue No. 3 (113-185)
 - Issue No. 4 (187-239)
 - Issue No. 5 (241-288)
 - Issue No. 6 (289-337)
 - Issue No. 7 (339-387)
 - Issue No. 8 (389-448)
 - Issue No. 9 (449-504)
 - Issue No. 10 (505-559)
 - Issue No. 11 (561-604)
 - Issue No. 12 (605-649)
- VETMED (57) 2012
- VETMED (56) 2011
- VETMED (55) 2010
- VETMED (54) 2009
- VETMED (53) 2008
- VETMED (52) 2007
- VETMED (51) 2006
- VETMED (50) 2005
- VETMED (49) 2004
- VETMED (48) 2003
- VETMED (47) 2002
- VETMED (46) 2001

Editorial Board

Ethical Standards

Reviewers 2017

For Authors

Author Declaration

Instructions for Authors

Submission Templates

Authors' Guide

Fees

Login – submissions till 2017

Submission / Login 2018

For Reviewers

Reviewers' Guide

Comparison of techniques for DNA extraction and agarose gel staining of DNA fragments using samples of *Cryptosporidium*

MCM Couto, AP Sudre, MF Lima, TCB Bomfim

<https://doi.org/10.17221/7085-VETMED>

Citation: Couto M., Sudre A., Lima M., Bomfim T. (2013): Comparison of techniques for DNA extraction and agarose gel staining of DNA fragments using samples of *Cryptosporidium*. Veterinarni Medicina, 58: 535-542.

[download PDF](#)

Differentiating between the *Cryptosporidium* species and their subtypes using only microscopy is impossible. Therefore, molecular tools are indispensable for accurate species and subtype diagnosis. However, if these tools are to be used correctly and accurately, the techniques used must be standardised. In the present study, two molecular techniques for diagnosing *Cryptosporidium* infection in cows were compared to determine the optimal methods. For each technique, we tested two DNA extraction methods, several annealing temperatures for nested PCR reactions targeting the *18S*, *SSU rRNA* (small subunit ribosomal RNA), and the *GP60* (60 kDa glycoprotein) genes, and two types of DNA staining reagents, ethidium bromide and GelRed™. We determined that one of the tested protocols yields a higher purity of extracted DNA. Additionally, optimised temperatures for the nested PCR of the *18S* and *GP60* genes were established. Finally, we determined that the GelRed™ dye was more sensitive than ethidium bromide, and its low toxicity facilitates handling and disposal and reduces environmental contamination.

Keywords:

18S gene; *GP60* gene; ethidium bromide; GelRed™

[download PDF](#)

Impact factor (WoS)

2016: **0.434**
5-Year Impact Factor: **0.71**

SJR (SCOPUS)

2017: **0.280 – Q2** (Veterina (miscellaneous))

 Share

Similarity Check

All the submitted manus checked by the [CrossRef Check](#).

Abstracted/Indexed in

Agrindex of AGRIS/FAO
Animal Breeding Abstracts
CAB Abstracts
CNKI
CrossRef
Current Contents®/Agric Biology and Environment Sciences
Czech Agricultural and Food Bibliography
DOAJ (Directory of Open Journals)
EBSCO – Academic Search Ultimate
FSTA (formerly: Food Science Technology Abstracts)
Google Scholar
J-GATE
Science Citation Index Expanded
SCOPUS
TOXLINE PLUS
Web of KnowledgeSM
Web of Science®

Licence terms

All contents of the journal available for non-commercial purposes, users are allowed to copy and redistribute the material as long as they cite the source.

Open Access Policy

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

Contact

Mgr. Zuzana Karlíková
Executive Editor
phone: + 420 227 010 352
e-mail: vetmed@caazv.cz

Address

Veterinární medicína
Czech Academy of Agricultural Sciences

[Reviewers login](#)

[Subscription](#)

© 2018 Czech Academy of Agricultural Sciences