

ISSN 1004-8685

CN 41-1192/R

中国卫生检验杂志

ZHONGGUO WEISHENG JIANYAN ZAZHI

2017年3月 第27卷 第5期

Mar.2017 Vol.27 No.5

国家卫生和计划生育委员会主管

中华预防医学会主办

CHINESE

JOURNAL OF HEALTH

LABORATORY TECHNOLOGY

CJ
HLT

中国科技论文统计源期刊(中国科技核心期刊)

RCCSE 中国核心学术期刊

中国生物医学源期刊

美国化学文摘(CA)源期刊

中国学术期刊综合评价数据库源期刊

5

2017

ISSN 1004-8685



9 771000 701070

中华预防医学会系列杂志

SERIAL JOURNAL OF CHINESE PREVENTIVE MEDICINE ASSOCIATION

中国卫生检验杂志

ZHONGGUO WEISHENG JIANYAN ZAZHI

半月刊 1991 年创刊 第 27 卷 第 5 期 2017 年 3 月 10 日出版

主 管

中华人民共和国国家卫生和计划生育委员会
100044,北京市西城区西直门外南路 1 号

主 办

中华预防医学会
100021,北京市朝阳区劲松东口华泰饭店

社长总编

张绍武

副社长

张 甜 姜友珍

副总编

郁庆福 李桂英 张克荣

编辑部主任

杨 锋

编 辑

中国卫生检验杂志编委会

出 版

中国卫生检验杂志社
450003 郑州市经一路 12 号 2288 信箱

编辑部电话

0371 - 65978342
0371 - 65968289 (传真)

广告部电话

0371 - 65998851
15538110112

出版日期

2017 年 3 月 10 日

发 行

国内发行:北京市邮政局
邮发代号:80 - 152
国外发行:中国国际图书贸易总公司
(北京 399 信箱)
国外发行代号:M5752

中国标准连续出版物号

ISSN 1004 - 8685
CN 41 - 1192/R

广告经营许可证号

4100004000124

2017 年版权归中国卫生检验杂志社所有

定 价

每期 21.50 元

目 次

论 著

- 抗结核分枝杆菌早期分泌性抗原靶蛋白 6 的新型单克隆抗体的制备及其临床应用 游璇,冷建杭,寿成珉,等 (609)
- 老年人血糖、血脂与生活方式的相关性分析
..... 于群,张进,方坤,等 (612)
- 载银二氧化钛抗菌涂层气管导管的抗真菌性能研究
..... 周虹,王原,蒋旭宏 (616)
- 微波消解 - 电感耦合等离子体质谱法测定稻田土壤中的重金属
..... 龚立科,赵凯,金铨,等 (618)

化学测定方法

- 水果中灭螨醌和羟基灭螨醌残留的高效液相色谱法测定
..... 陈波,徐明敏,金米聪 (622)
- 连续流动分析 - 水杨酸盐分光光度法测定空气中的氨
..... 苏敏,王定国,陈俊秀,等 (626)

食品与药品检验

- 湿热环境对维 C 银翘片中维生素 C 含量的影响
..... 谢巍,李玉静 (628)
- 毛细管气相色谱法同时检测分析鱼油中十八碳三烯酸、二十碳五烯酸和二十二碳六烯酸 梁炼华,李卓强,古艳卿 (632)

本刊编委 (排名按笔画排列)

丁家华 仓公敖 方赤光 王 旻
王 哲 王大宁 王志玉 王京宇
王凯娟 王栩东 毋福海 冯晓燕
叶能权 毕永毅 刘玉龙 刘运德
刘秀梅 刘殿武 吕玉民 吕昌银
祁建城 任一平 孙长颢 孙成均
许春向 陈守建 何建国 何浙生
何晓青 李 蓉 李 磊 李明武
李晓虹 宋宏彬 吴清平 杨 元
张 曦 张贺秋 邹学贤 姜庆五
赵 卓 赵雁林 高永清 贾珍珍
栗文元 凌文华 栾 燕 徐东群
曹 佳 晁福寰 崔 巍 常凤启
黄国伟 康 辉 康维钧 韩玉霞
韩学尧 曾现伟 窦志勇 溥 萍
阚 颀 廖百森 裴少军 裴晓方
谭晓东 熊 英 潘 慧 冀元棠
穆新林

Editorial Board Member

DING Jia - hua, CANG Gong - ao, FANG Chi -
guang, WANG Min, WANG Zhe, WANG Da -
ning, WANG Zhi - yu, WANG Jing - yu, WANG
Kai - juan, WANG Xu - dong, WU Fu - hai,
FENG Xiao - yan, YE Neng - quan, BI Yong -
yi, LIU Yu - long, LIU Yun - de, LIU Xiu - mei,
LIU Dian - wu, LV Yu - min, LV Chang - yin, QI
Jian - cheng, REN Yi - ping, SUN Chang - hao,
SUN Cheng - jun, XU Chun - xiang, CHEN
Shou - jian, HE Jian - guo, HE Zhe - sheng, HE
Xiao - qing, LI Rong, LI Lei, LI Ming - wu,
LI Xiao - hong, SONG Hong - bin, WU Qing -
ping, YANG Yuan, ZHANG Xi, ZHANG He -
qiu, ZOU Xue - xian, JIANG Qing - wu, ZHAO
Zhuo, ZHAO Yan - lin, GAO Yong - qing, JIA
Zhen - zhen, LI Wen - yuan, LING Wen - hua,
LUAN Yan, XU Dong - qun, CAO Jia, CHAO
Fu - huan, CUI Wei, CHANG Feng - qi, HUANG
Guo - wei, KANG Hui, KANG Wei - jun, HAN
Yu - xia, HAN Xue - yao, ZENG Xian - wei,
DOU Zhi - yong, PU Ping, KAN Biao, LIAO Bai -
sen, PEI Shao - jun, PEI Xiao - fang, TAN Xiao -
dong, XIONG Ying, PAN Hui, JI Yuan - tang,
MU Xin - lin

网 址

www. zgwsjy. cn

投稿电子信箱

wsjyzz@126. com

印 刷

鑫宏源印刷包装有限责任公司

来稿咨询电话

010 - 84030401

固相微萃取 - 高效液相色谱法测定牛奶和肉类中己烯雌酚、丙酸睾酮和

双酚 A 张秋菊,曹林波,翁少梅,等 (635)

微生物检测方法

市售巴氏杀菌乳中微生物污染状况调查
..... 李莹,裴晓燕,闫琳,等 (639)

兔血浆纤维蛋白原琼脂培养基技术与 Baird - Parker 琼脂培养基技术检
测食品中金黄色葡萄球菌的比较
..... 容艳芬,李艳嫦,卢勉飞,等 (642)

实时荧光定量 PCR 联合检测诺如病毒和副溶血性弧菌的方法建立与
应用 白颀,吴刚,李孝军,等 (646)

2011 年 - 2015 年奉化市手足口病患者及密切接触者肠道病毒核酸检测
结果分析 江金伦,陈静,冯伟,等 (649)

临床检验

双水平气道正压通气联合布地奈德福莫特罗对慢性阻塞性肺疾病急性加
重合并 II 型呼吸衰竭患者的疗效分析
..... 郝文东,王国芳,张彩莲 (652)

2 型糖尿病患者尿液中血管细胞黏附分子 - 1 水平与肾脏损伤的相关性
研究 刘琴,严小倩,梁靖琛 (655)

实时荧光定量 PCR 在神经梅毒检测中的应用
..... 苏宗义,李彩虹,王绘翔,等 (658)

恶性胸腔积液患者可溶性簇分化抗原 26 和二肽蛋白酶 IV 的检测及临床
意义 卢旺娣,李琳玲,于婷婷,等 (660)

干细胞肿瘤标志物 CD133 与哺乳动物雷帕霉素靶蛋白在胃癌组织中的
表达及临床意义 万晓晨,马小红,吴国友,等 (663)

Th22 细胞及其相关细胞因子在原因不明性复发性流产发病机制中的作用	兰燕芳,徐浩,吴淋淋	(667)
分级检验方法在血脂生化检验中的应用评价	李彦娜,王富伟	(670)
1 103 名儿童维生素 D 营养状况的临床分析	李莺,马嘉子	(672)
急性脑梗死患者血清中 CD40L、白细胞介素 18 含量与患者神经功能损伤的关系		
.....	颜颂旭,王明珠,竺王玉,等	(674)
小儿哮喘炎症因子测定与免疫和气道功能的关系探讨	王瑶瑶,杨莲芳,蒋丽芳	(677)
急性胰腺炎患者严重程度与血清超敏C反应蛋白、同型半胱氨酸、降钙素原和血浆D-二聚体水平相关性的临床		
研究	成浩	(680)
CD64、血清降钙素原及 C-反应蛋白在新生儿败血症诊断中的意义	施忆玫,王有成,俞北伟,等	(683)
可溶性血管内皮细胞蛋白受体 C 和凝血酶调节蛋白在糖尿病肾病中的诊断价值		
.....	钱定良,闫绍荣,李克诚	(686)
甲胎蛋白异质体 3、高尔基体蛋白 73 血清水平在评价原发性肝细胞癌射频消融治疗应答中的应用		
.....	王彦,黄晶,王西叶,等	(689)
急性冠脉综合征患者超敏 C-反应蛋白、肌钙蛋白 I、脑钠肽水平变化及临床意义分析		
.....	吴礼锋,邹跃玲,闫绍荣	(692)

分子诊断与基因检测

14 例染色体不平衡易位的遗传学分析	林小玲,唐少华,项延包,等	(695)
--------------------------	---------------	-------

监测分析

上海金山化学工业区周边 PM2.5 金属元素特征分析	吴云,叶玉龙,张亚宁,等	(698)
2014 年-2015 年宁波市手足口病流行特征和病原监测分析	谢蕾,倪红霞,丁克琴,等	(702)
2013 年-2015 年宁波北仑区人民医院住院伤害监测结果分析	王雪英,朱银潮,王磊,等	(705)
2012 年-2015 年舟山地区小儿与成人就诊人群过敏原对比分析	叶吉波	(708)
2013 年-2016 年呼和浩特市流感病原学监测分析	杨海荣,秦圣洁,罗云,等	(710)
温州市洞头区托幼机构消毒质量监测结果	洪丽君,蔡文艳	(713)

调查报告

淄博市 2011 年 - 2015 年肾综合征出血热实验室检测结果分析 郭茜,许进,刘超,等 (715)

2012 年 - 2015 年湛江市出口罗非鱼微生物污染状况调查 丁秀琼,聂芳红,孙良娟,等 (718)

扬州市江都区艾滋病病毒/艾滋病检测途径与晚发现情况分析 赵万怀,陈艳,王月萍 (722)

糖尿病患者自持 POCT 血糖仪使用现状调查分析 金爱慧,范明亮,高玉琴,等 (724)

2013 年 - 2015 年泰州市腹泻病毒流行病学特征分析 董洪燕,马智龙,杨茂丹,等 (728)

芮城县高危人群布鲁菌病调查结果分析 吴东生 (731)

细菌耐药性研究

医院感染革兰阴性杆菌产超广谱 β - 内酰胺酶、AmpC 酶耐药性研究 倪慧群,赵丽丽,方中飞,等 (733)

肠外感染嗜水气单胞菌的临床分布及耐药性分析 王施施,杨锦红,刘彩霞,等 (736)

骨科无菌手术切口感染的病原菌分布及耐药性分析 顾楷,周也立,顾伟 (738)

白色假丝酵母菌对氟康唑敏感性及其耐药机制研究 何琦丽 (741)

楚雄州结核分枝杆菌抗结核药物耐药性分析 丁启能,彭春娇,罗宗淑,等 (744)

大庆地区 2013 年 - 2015 年金黄色葡萄球菌耐药性分析 付宝庆,齐文晶,胡春岭,等 (748)

北京市密云地区腹泻病原菌耐药性分析 于兆阳,张巍巍 (751)

教学与实验室管理

血站核酸实验室质量监控及分析 秦龑丽,潘登,戴田,等 (754)

经验交流

化学发光酶免疫分析技术与实时荧光 PCR 法检测肠道病毒 71 型感染的研究 范荣军,庄艳,蔡路,等 (756)

C - 反应蛋白乳胶增强免疫比浊检测方法研究 王玉金,张娟丽,王利丹,等 (758)

责任编辑 张舒 责任校对 陈欣欣 英文编辑 张蒙

CHINESE JOURNAL OF HEALTH LABORATORY TECHNOLOGY

Semimonthly Established in 1991, Volume 27 Number 5 March 10, 2017

Managed by

National Health and Family Planning Commission
of the People's Republic of China
No. 1, Xizhimen Wainan Road, Xicheng District, Beijing, 100044

Sponsored by

Chinese Preventive Medicine Association
Hua Thai Hotel, East Exit of Jinsong Road, Chaoyang District, Bei-
jing, 100021

Editor in Chief

ZHANG Shao - wu

Deputy Chairman

ZHANG Tian, JIANG You - zhen

Associate Editor in Chief

YU Qing - fu, LI Gui - ying, ZHANG Ke - rong

Director of Editorial Department

YANG Feng

Edited by

Editorial Board of Chinese Journal of Health Labo-
ratory Technology

Published by

Editorial Department of Chinese Journal of Health
Laboratory Technology
Mailbox 2288, No. 12, Jingyi Road, Zhengzhou, 450003

Editorial office telephone

0371 - 65978342
0371 - 65968289 (Fax)

Advertising department telephone

0371 - 65998851
15538110112

Publication Date

March 10, 2017

Domestic Distributor

Beijing Post Bureau
Code: 80 - 152

Overseas Distributor

China International Book Trading Corporation
(P. O. Box 399, Beijing, China)
Code: M5752

Website

www. zgwsjy. cn

E - mail

wsjyzz@126. com

Standard Series Number

ISSN 1004 - 8685
CN 41 - 1192/R

Advertising Management License

4100004000124

Copyright 2017 by Editorial Department of
Chinese Journal of Health Laboratory Technology

Price

RMB ¥21.50

CONTENTS IN BRIEF

Original Articles

Preparation and clinical application of a novel monoclonal antibody against

Mycobacterium tuberculosis early secretory antigenic target - 6

..... YOU Xuan, LENG Jian - hang, SHOU Cheng - min, *et al* (609)

Analysis of the correlation of the levels of blood glucose, blood lipid with lifes-

tyles of elderly people YU Qun, ZHANG Jin, FANG Kun, *et al* (612)

Study on antifungal property of antimicrobial coated endotracheal tube with

silver loaded titanium dioxide

..... ZHOU Hong, WANG Yuan, JIANG Xu - hong (616)

Determination of heavy metals in paddy soil by microwave digestion - induc-

tively coupled plasma mass spectrometry

..... GONG Li - ke, ZHAO Kai, JIN Quan, *et al* (618)

Chemical Detection Method

Determination of acequinocyl and hydroxyacequinocyl in fruits by high - per-

formance liquid chromatography

..... CHEN Bo, XU Ming - min, JIN Mi - cong (622)

Determination of ammonia in air by continuous flow analysis - salicylate spec-

trophotometric method

..... SU Min, WANG Ding - guo, CHEN Jun - xiu, *et al* (626)

Food and Drug Inspection

Effects of hygrothermal environment on the content of vitamin C in Vitamin C

Yinqiao Tablets XIE Wei, LI Yu - jing (628)

Simultaneous determination of α -calendic acid, eicosapentaenoic acid and do-

cosahexenoic acid in fish oil by capillary gas chromatography

..... LIANG Lian - hua, LI Zhuo - qiang, GU Yan - qing (632)

Determination of diethylstilbestrol, testosterone propionate and bisphenol A in milk and meat by solid phase micro – extraction and high – performance liquid chromatography	ZHANG Qiu – ju, CAO Lin – bo, WENG Shao – mei, <i>et al</i> (635)
Microbe Detection Method	
Investigation on the microbial contamination of pasteurized milk in retail market	LI Ying, PEI Xiao – yan, YAN Lin, <i>et al</i> (639)
Comparison of the rabbit plasma fibrinogen agar and Baird – Parker agar count plate methods for the detection of <i>Staphylococcus aureus</i> in food	RONG Yan – fen, LI Yan – chang, LU Mian – fei, <i>et al</i> (642)
Establishment and application of the joint detection of norovirus and <i>Vibrio parahaemolyticus</i> by real – time quantitative PCR	BAI Jie, WU Gang, LI Xiao – jun, <i>et al</i> (646)
Analysis of intestinal viral nucleic acid detection results in patients with hand – foot – mouth disease and close contacts in Feng-hua during 2011 – 2015	JIANG Jin – lun, CHEN Jing, FENG Wei, <i>et al</i> (649)
Clinical Laboratory Test	
Research on the efficiency of bi – level positive airway pressure ventilation combined with Budesonide/Formoterol in the treatment of chronic obstructive pulmonary disease complicated with type II respiratory failure	HAO Wen – dong, WANG Guo – fang, ZHANG Cai – lian (652)
Correlation study between urinary vascular cell adhesion molecule – 1 levels and kidney injury in type 2 diabetes mellitus patients	LIU Qin, YAN Xiao – qian, LIANG Jing – chen (655)
Application of real – time fluorescence quantitative PCR in the detection of neurosyphilis	SU Zong – yi, LI Cai – hong, WANG Hui – xiang, <i>et al</i> (658)
Detection and clinical significance of sCD26 and DPP – IV in patients with malignant pleural effusion	LU Wang – di, LI Lin – ling, YU Ting – ting, <i>et al</i> (660)
Expressions and clinical significance of CD133 and mTOR in gastric cancer	WAN Xiao – chen, MA Xiao – hong, WU Guo – you, <i>et al</i> (663)
Roles of Th22 cells and their related cytokines in the pathogenesis of unexplained recurrent spontaneous abortion	LAN Yan – fang, XU Hao, WU Lin – lin (667)
Application of grading test method in lipid biochemistry test	LI Yan – na, WANG Fu – wei (670)
Clinical analysis of 1 103 children’s nutritional status of vitamin D	LI Ying, MA Jia – zi (672)
Relationship of serum CD40L and IL – 18 levels in patients with acute cerebral infarction and patients with neurological impairment	YAN Song – xu, WANG Ming – zhu, ZHU Wang – yu, <i>et al</i> (674)

Detection of inflammatory factors in children with asthma and their correlations with airway function and immunity
..... WANG Yao - yao, YANG Lian - fang, JIANG Li - fang (677)

Relationship of acute pancreatitis severity with serum Hcy, hs - CRP, PCT and D - D levels CHENG Hao (680)

Significance of CD64, procalcitonin and C - reactive protein in the diagnosis of neonate sepsis
..... SHI Yi - mei, WANG You - cheng, YU Bei - wei, *et al* (683)

The diagnostic value of soluble endothelial C receptor and thrombomodulin in diabetic nephropathy
..... QIAN Ding - liang, YAN Shao - rong, LI Ke - cheng (686)

Evaluation on the therapeutic response of radiofrequency ablation for primary hepatocellular carcinoma with the serum levels of
AFP heterogeneity 3 and Golgi protein 73 WANG Yan, HUANG Jing, WANG Xi - ye, *et al* (689)

Level variation of hs - CRP, cTnI and BNP in acute coronary syndrome patients and its clinical significance
..... WU Li - feng, ZOU Yue - ling, YAN Shao - rong (692)

Molecular Diagnosis and Gene Detection

Genetic analysis of 14 cases with unbalanced chromosomal translocation
..... LIN Xiao - ling, TANG Shao - hua, XIANG Yan - bao, *et al* (695)

Monitoring and Analysis

Characteristic analysis of metallic elements in PM2.5 around Jinshan Chemical Industry Zone of Shanghai
..... WU Yun, YE Yu - long, ZHANG Ya - ning, *et al* (698)

Epidemiological characteristics and pathogen surveillance of hand - foot - mouth disease in Ningbo during 2014 - 2015
..... XIE Lei, NI Hong - xia, DING Ke - qin, *et al* (702)

Analysis of hospital injury surveillance in Beilun People's Hospital of Ningbo from 2013 to 2015
..... WANG Xue - ying, ZHU Yin - chao, WANG Lei, *et al* (705)

A comparative research on allergens in children and adults of Zhoushan from 2012 to 2015 YE Ji - bo (708)

Pathogenic surveillance and analysis of influenza in huhhot during 2013 - 2016
..... YANG Hai - rong, QIN Sheng - jie, LUO Yun, *et al* (710)

The monitoring results of disinfection quality in nurseries and kindergartens in Dongtou district of Wenzhou
..... HONG Li - jun, CAI Wen - yan (713)

Investigation Report

Analisis of laboratory test results of hemorrhagic fever of renal syndrome in Zibo from 2011 to 2015
..... GUO Qian, XU Jin, LIU Chao, *et al* (715)

Investigation of microbial contamination status in tilapia for exportion in Zhanjiang from 2012 to 2015	
..... DING Xiu - qiong, NIE Fang - hong, SUN Liang - juan, <i>et al</i> (718)	
Analysis of detection ways and late diagnosis of HIV/AIDS in Jiangdu district of Yangzhou	
..... ZHAO Wan - huai, CHEN Yan, WANG Yue - ping (722)	
Investigation and analysis of the use of point - of - care testing glucose meters in diabetic patients	
..... JIN Ai - hui, FAN Ming - liang, GAO Yu - qin, <i>et al</i> (724)	
Etiological study on viral pathogens of diarrhea patients in Taizhou during 2013 - 2015	
..... DONG Hong - yan, MA Zhi - long, YANG Mao - dan, <i>et al</i> (728)	
Analysis of surveillance results on brucellosis in high - risk groups of Ruicheng	WU Dong - sheng (731)
Bacterial Resistance Research	
Research on the drug resistance of <i>Gram - negative bacillus</i> producing ESBLs, AmpC enzyme in hospital infections	
..... NI Hui - qun, ZHAO Li - li, FANG Zhong - fei, <i>et al</i> (733)	
Distribution and antimicrobial resistance of extraintestinal parenteral <i>Aeromonas hydrophila</i>	
..... WANG Shi - shi, YANG Jin - hong, LIU Cai - xia, <i>et al</i> (736)	
Pathogenic bacteria distribution in orthopedic aseptic incision infections and its resistance analysis	
..... GU Kai, ZHOU Ye - li, GU Wei (738)	
Study on the susceptibility to fluconazole and resistance mechanism of <i>Candida albicans</i>	HE Qi - li (741)
Resistance analysis of <i>Mycobacterium tuberculosis</i> in Chuxiong Yi Autonomous Prefecture	
..... DING Qi - neng, PENG Chun - jiao, LUO Zong - shu, <i>et al</i> (744)	
Surveillance on drug resistance of <i>Staphylococcus aureus</i> in Daqing area from 2013 to 2015	
..... FU Bao - qing, QI Wen - jing, HU Chun - ling, <i>et al</i> (748)	
Analysis of the drug resistance of diarrhea pathogens in Miyun, Beijing	YU Zhao - yang , ZHANG Wei - wei (751)

Editor in Charge ZHANG Shu Responsibility of Proofreading CHEN Xin - xin English Editor ZHANG Meng

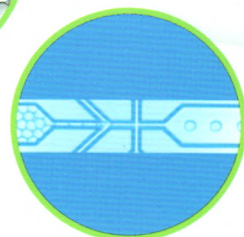
The future of qPCR is here, and it's digital.



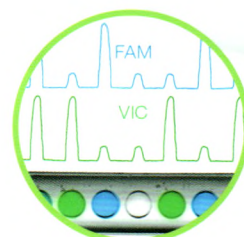
1. 微滴生成



2. PCR 扩增



3. 微滴分析



4. 报告结果

开启 PCR 技术的数字化时代

相信吗？核酸定量不再依赖定量PCR 和 C_q 值。
Bio-Rad 第三代 PCR — QX200™ 系列微滴式数字
PCR 系统凭借独特的微滴化技术可直接“数”出
核酸分子的个数

- 突变序列检测的灵敏度无与伦比 (可达 0.001%)
- 有效区分浓度差异微小的样品
- 无需标准曲线的绝对定量



- 实验流程快捷明了
- 定量检测肿瘤分子标志物
- 监测病毒载量变化
- 识别基因组结构变异
- 分析基因表达及调控

Research. Together.

更多 ddPCR 相关信息，请关注 Bio-Rad 微信公众号



该产品仅用于科研用途，不用于临床诊断

伯乐公司中国呼叫中心: 800-820-5567, 021-61698504

欢迎访问: <http://www.bio-rad.com>

BIO-RAD