

Molecular Nutrition & Food Research

Instructions to authors

(revised February 2005)

Authors are requested to follow these instructions carefully. Manuscripts not prepared accordingly will not be accepted.

- 1 Aims and scope
- 2 General terms of publication
- 3 Online submission of manuscripts
- 4 Types of contributions
- 5 Organization of manuscripts
- 6 Proofs and reprints
- 7 Reporting specific data
- 8 Standard abbreviations

1 Aims and scope

Molecular Nutrition & Food Research (MNF) publishes papers focusing on a broad area of food research dealing with bioactivity/safety, chemistry, immunology, microbiology, nutrition, and technology. Impetus is given on bioactivity/safety and nutrition.

MNF is published in 12 issues *per year*, including regular issues as well as topical issues or proceedings of international meetings. Three categories of scientific contributions are accepted for publication:

- (i) original papers,
- (ii) reviews, and
- (iii) educational papers.

Our **Early View online publication** is updated weekly and enables papers to be available online within 6 weeks of acceptance.

2 General terms of publication

The author vouches that the work has not been published elsewhere, either completely, in part, or in any other form and that the manuscript has not been submitted to another journal. The submitting author (listed under “Correspondence”) accepts the responsibility of having included as coauthors all persons appropriate and none inappropriate. The submitting author certifies that all coauthors have seen a draft copy of the manuscript and agree with its publication.

Upon acceptance of the manuscript the author is required to fill in the “Copyright Transfer Agreement”, sign it and submit it along with hardcopies of the illustrations of the paper to the Managing Editor at the following address:

Hans-Joachim Kraus
Molecular Nutrition & Food Research, Managing Editor
Wiley-VCH Verlag
Boschstrasse 12
D-69469 Weinheim
Germany

This mandatory copyright form can be found on the homepage of the journal at <http://www.mnf-journal.de> under the link “For Authors”. If the contribution contains one or more color figures the author is also required to submit the “Color Figures Order Form” to the Managing Editor. This form can be found at the same site as the “Copyright Transfer Agreement”.

All scientific contributions will be peer-reviewed on the criteria of originality and quality. Authors may suggest up to five potential referees, including their E-mail addresses, as well as individuals whom they wish to be excluded from the review process. On acceptance, papers may be subjected to editorial changes. A revised paper will retain its original date of receipt only if it is resubmitted to the Editors within two months after revision was requested. Responsibility for the factual accuracy of a paper rests entirely with the author.

MNF publishes articles in English. Manuscripts must be grammatically and linguistically correct, and authors less familiar with English usage are advised to seek the help of English-speaking colleagues. American spelling is preferred.

Please note that the Ethical Guidelines to Publication of Chemical Research issued by the American Chemical Society are followed and applied by the Editors of **MNF**.

3 Online submission of manuscripts

MNF offers a web-based manuscript submission and peer review system. This service guarantees fast and safe submission of manuscripts and rapid assessment process. Usage of this system is obligatory, conventional submission of manuscripts is not accepted.

3.1 General remarks

To submit your manuscript online, please proceed along the following steps:

- Prepare your manuscript and illustrations in the appropriate format, according to the instructions given below

(see Sections 4 to 8). Please also make sure that your paper conforms to the scientific and style instructions of **MNF** as given herein. You can also find a link to these instructions at the submission site at <http://mc.manuscriptcentral.com/mnf/> or on the homepage of the journal at <http://www.mnf-journal.de> under the link “For Authors”.

- If you have not already done so, create an account for yourself in the system at the submission site, <http://mc.manuscriptcentral.com/mnf/> by clicking on the “Create an Account” button. To monitor the progress of your manuscript throughout the review process, just login periodically and check your Author Center.
- Please be sure to study the “Instructions and Forms” given on the **MNF** homepage carefully, and then let the system guide you through the submission process. Online help is available to you at all times during the process. You are also able to exit/re-enter at any stage before finally “submitting” your work. All submissions are kept strictly confidential. If you have any questions concerning the online submission program, do not hesitate to contact the editorial support at mnf@wiley-vch.de.

3.2 Electronic manuscripts

Please follow the instructions in Section 5 “Organization of manuscripts” when preparing the electronic version of the manuscript and ensure that data are given in the order and the correct style for the journal.

- Data should be typed unjustified, without hyphenation except for compound words. Use carriage returns only to end headings and paragraphs; spacing will be introduced by the typesetter.
- Do not use the space bar to make indents; where these are required (*e.g.*, tables) use the TAB key.
- If working in Word for Windows, please create special characters through *Insert/Symbol*.

All submissions will be converted to PDF format during the upload process. The system automatically generates one PDF file which contains all parts of the manuscript. This file is available at the manuscript site in two versions, *i.e.*, in reduced as well as in full resolution.

Please note that the file management for production purposes requires the following:

- Main text (incl. front material) as well as figure legends and tables (in this order) should be given in one file, preferably saved in RTF format. Most major word processing formats are accepted.
- Figures should preferably be in TIFF, EPS, PPT or PDF format. If these formats are not available, kindly submit figure files in their original format. Each figure should be given in a separate file and should have the following resolution:

Type	Resolution
Graph	800 – 1200 DPI
Photos	400 – 800 DPI
Color (only CMYK)	300 – 400 DPI

3.3 Revised manuscripts

In revised manuscripts the areas containing the major required changes should be marked and the script color changed. The file(s) with the changes visible on screen should be submitted to the online procedure.

Upon acceptance of the manuscript the final uploaded version will be taken as the basis for copy-editing and the subsequent production process.

4 Types of contributions

Three types of scientific contributions are considered for publication:

- Original papers** describing complete investigations. Manuscripts may not have been published previously, except in the form of a preliminary communication.
- Review articles** provide an overview on the current research in a specific field.
- Educational papers** will describe and/or explain a method or technique used in food and nutrition research. An educational paper may be supplemented by multimedia material (*e.g.*, animations or video sequences) which will be only available online.

Original papers should not exceed 6500 words in total; this includes references, figure legends, and tables.

Review articles and educational papers will normally be invited by the Editors. In both cases there is no length restriction and, thus, there are no page charges. However, space should be used economically. Authors wishing to submit a review article or an educational paper should send a brief outline of its contents to the Editor-in-Chief (schreier@pzc.uni-wuerzburg.de) before the manuscript is drafted.

5 Organization of manuscripts

Manuscripts must be typewritten with double spacing (including footnotes, references, tables, legends, *etc.*) using the page setup that leaves margins of 3.5 cm on all sides.

5.1 Contents of first page of manuscript

The first page of the manuscript should contain only the following:

- 1) Title of the paper containing only the keywords pertaining to the subject matter. No abbreviations should be used in the title.
- 2) Full names (including first name) of the authors and the name of the institute. If the publication originates from several institutes the affiliations of all authors should be clearly stated by using superscript numbers after the name and before the institute.
- 3) A shortened version of the title not exceeding 70 letters (running title).
- 4) Name and full postal address of the author to whom all correspondence (including galley proofs) is to be sent. E-mail code and fax number must be included to speed up communication.
- 5) A list of abbreviations used in the paper excluding standard abbreviations (see list of “Standard Abbreviations”, Section 8).
- 6) Keywords (maximally 5), which will be used for compiling the subject index.

5.2 Abstract

The second and (if necessary) third page of the manuscript should contain the abstract only. This must be self-explanatory and intelligible without reference to the text. It should not exceed 200 words. Abbreviations, including standard abbreviations, must be written in full when first used.

5.3 Division into sections

Manuscripts should be divided into the following sections:

“1 Introduction”: containing a description of the problem under investigation and a brief survey of the existing literature on the subject.

“2 Materials and methods”: for special materials and equipment, the manufacturer’s name and location should be provided.

“3 Results”

“4 Discussion”

“5 References”

Sections 3 and 4 may be combined and should then be followed by a short section entitled “Concluding remarks”.

Subdivisions of sections should be indicated by subheadings.

5.4 References

References should be numbered sequentially in the order in which they are cited in the text. The numbers should be set in brackets, thus [2, 18]. References are to be collected in numerical order at the end of the manuscript under the heading “References”; they should also be typed with double spacing throughout. Papers with multiple authors should be limited to listing five authors. Where there are more than five authors, the first four should be listed, followed by *et al.* Titles of journals should be abbreviated according to the practice of *Chemical Abstracts*. The abbreviated title and the volume number should be in italics. Please give the DOI (Digital Object Identifier) if available. Please note the following examples.

Journals:

- [1] Steinhart, H., Biernoth, G., Lipids in novel food. *Eur. J. Lipid Sci. Technol.* 2001, 103, 40–41.
- [2] Somoza, V., Lindenmeier, M., Wenzel, E., Frank, O., *et al.*, Activity-guided identification of a chemopreventive compound in coffee beverage using in vitro and in vivo techniques. *J. Agric. Food Chem.* 2003, 51, 6861–6869.
- [3] Humpf, H.-U., Voss, K. A., Effects of thermal food processing on the chemical structure and toxicity of fumonisin mycotoxins. *Mol. Nutr. Food Res.* 2004, 48, 255–269. DOI 10.1002/mnfr.200400033.

Other serial publications such as “*Advances in Food and Nutrition Research*” should be cited in the same manner as journals.

Books:

- [4] Eisenbrand, G., Dayan, A. D., Elias, P. S., Grunow, W., Schlatter, J. (Eds.), *Carcinogenic and Anticarcinogenic Factors in Food*, Wiley-VCH Verlag, Weinheim 2003.
- [5] Geis, A., Perspectives of genetic engineering of bacteria used in food fermentations, in: Heller, K. J. (Ed.), *Genetically Engineered Food – Methods and Detection*, Wiley-VCH Verlag, Weinheim 2003, pp. 100–118.
- [6] BeMiller, J. N., Starch, in: Huy, Y. H. (Ed.), *Encyclopedia of Food Science and Technology*, John Wiley & Sons, Inc., New York 1992, pp. 2418–2424.

Allusions to “unpublished observations”, papers “to be published” or “submitted for publication” and the like should be a part of the text, in parentheses. Material “in press” should be entered under references. Abstracts and posters in meetings books must not be cited unless they are generally accessible. Responsibility for the accuracy of bibliographic references rests entirely with the author.

5.5 Footnotes

Footnotes, *i.e.*, explanations or comments on the text, should be indicated by an asterisk* and written at the bottom of the page on which the asterisk appears in the text.

5.6 Acknowledgements

Acknowledgements as well as information regarding funding sources should be provided on a separate page and will appear at the end of the text (before “5 References”).

5.7 Tables

Tables with suitable captions at the top and numbered with Arabic numerals should be collected at the end of the text on separate sheets (one page *per* table). Column headings should be kept as brief as possible and indicate units. Footnotes to tables should be indicated a), b), c) *etc.* and typed on the same page as the table.

5.8 Supplementary material

Extensive tables (more than 5 typewritten pages) should be published online as supplementary material (in PDF file format). This material will not be typeset so authors should prepare this in the final form (preferably already in PDF file format). Also for this reason there will be no galley proofs of this material. Supplementary material will be made freely available on the web (similar to the table of contents and the article abstracts). Authors are permitted to place this material on their homepages when they are setting up a link to the fulltext version of the article in Wiley InterScience.

Further, other files may be submitted as supplementary material (*e.g.*, animations, video sequences). Please contact the Managing Editor at the publishing house (hkraus@wiley-vch.de) for suitable file formats. All supplementary material will also undergo the peer review process. Thus, this material has to be submitted electronically along with the main body of the article. It is in the hands of the Editor-in-Chief to decide which part of the manuscript will be published as supplementary material.

5.9 Figures and legends

Diagrams and photographs should be submitted as separate files. Upon acceptance of the paper hardcopies of fine quality suitable for reproduction should be sent to the Managing Editor (address see section 2). Figures should be numbered consecutively with Arabic numerals in the order of their appearance. Figures should not be larger than the manuscript paper. Numbers and symbols inscribed must be large enough to be legible after reduction in size. In electropherograms presented horizontally, the anode should be at the left while in vertical presentations the anode should be at the bottom. Two-dimensional presentations, *e.g.*, with isoelec-

tric focusing and sodium dodecyl sulfate-electrophoresis in the two dimensions, are thus presented consistent with the standard coordinate system. Each figure is to be accompanied by a legend, which should be self-explanatory. The legends should not appear under the figures but be collected and typewritten with double spacing on a separate page.

- Please make sure that lettering is sufficiently large since it must remain legible after the required reduction of the figure from its original size to 8 cm in width (letter size after reproduction about 2 mm).
- Color figures can be reproduced, however, authors will be charged for additional costs incurred for the reproduction of color (495 *per* figure). Should your contribution contain one or more color figures it is mandatory that you submit the “Color Figures Order Form” (for further details please see Section 2).

5.10 Biographic material

Corresponding authors of review articles are invited to submit a portrait photograph of themselves and a short biographical text (no more than 80 words) which will appear at the very end of the article.

5.11 Structural formulae

Structural formulae should be drawn in the manuscript at the position where they belong. They may be numbered in the order of their appearance with Arabic numerals in parentheses.

5.12 Equations

Mathematical and chemical equations are to be written in the manuscript at the place in which they belong and should be marked by Arabic numerals in parentheses in the right margin in the order of their appearance.

5.13 Abbreviations

Abbreviations are hindrances to a reader working in a field other than that of the author, and to abstractors. Therefore, their use should be restricted to a minimum. Abbreviations should be introduced only when repeatedly used. Abbreviations used only in a table or a figure may be defined in the legend. No abbreviations should be used in the title and keywords. If standard abbreviations are used in the Abstract they must be defined when first introduced. If nonstandard abbreviations are used in the Abstract they should be defined in the Abstract, in the list of abbreviations of the manuscript, as well as upon their first use in the body of the paper.

Section 8 at the end of these instructions contains a list of abbreviations which may be used without definition in the articles published in **MNF**.

6 Proofs and reprints

Before publication authors will receive page proofs *via* E-mail in PDF low resolution file format, together with a sheet including instructions and a reprint order form, also as PDF files. The page proofs and the reprint order form should be printed out. The proofs should be carefully corrected following the instructions. In particular, authors should answer any editing queries. The reprint order form should be filled out (even if reprints are not required), and both should be returned, preferably by fax, to the MNF Editor-in-Chief at the following address:

Molecular Nutrition & Food Research
The Editor-in-Chief: Prof. Dr. Peter Schreier
University of Würzburg
Food Chemistry
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D-97074 Würzburg
Germany
Fax: +49-(0)931-8885 484
E-mail: schreier@pzl.uni-wuerzburg.de

Authors will be charged for extensive alterations of their article. Reprints can be ordered at prices shown on the reprint order form. Upon publication the submitting author (listed under “Correspondence”) will receive a complimentary copy of the issue containing the article.

7 Reporting specific data

7.1 Chemical structures

Structures should be produced with the use of a drawing program such as ChemDraw.

Structure drawing preferences are as follows:

As drawing settings select:

chain angle 120°
bond spacing 18% of width
fixed length 14.4 points (0.508 cm, 0.2 in.)
bold width 2.0 points (0.071 cm, 0.0278 in.)
line width 0.6 point (0.021 cm, 0.0084 in.)
margin width 1.6 points (0.056 cm, 0.0222 in.)
hash spacing 2.5 points (0.088 cm, 0.0347 in.)

As text setting select: font, Arial or Helvetica; size, 10 pt.
Under the preferences choose: units, points; tolerances, 3 pixels.

Under page setup choose: paper, US Letter; scale, 100%.

Using the ChemDraw ruler or appropriate margin settings, create structure blocks, schemes, and equations having maximum widths of 11.3 cm (one-column format) or 23.6 cm (two-column format). Note: if the foregoing preferences

are selected as cm values, the ChemDraw ruler is calibrated in cm. Also note that a standard sheet of paper is only 21.6 cm wide, so all graphics submitted in two-column format must be prepared and printed in landscape mode.

Use boldface type for compound numbers but not for atom labels or captions.

Authors using other drawing packages should, as far as possible, modify their program's parameters to reflect the above guidelines.

7.2 Physical and other data

It is important that novel compounds, either synthetic or isolated/produced from natural sources, be characterized completely and unambiguously. Supporting data normally include physical form, melting point (if solid), UV/IR spectra. If appropriate, ^1H and ^{13}C NMR, mass spectral data, and optical rotations or CD information (when compounds have chiral centers).

Reports on flavor constituents should conform to the recommendations made by the International Organization of the Flavor Industry (IOFI). Thus, any identification of a substance has to be done by the latest form of available analytical techniques. In general, any particular substance must have its identity confirmed by at least two methods; that means, in practice, comparison of chromatographic and spectroscopic data (which may include GC, MS, IR, and NMR) with those of an authentic sample. If only one method has been applied, the identification has to be labeled as “tentative”: This is also valid in case of identification performed only by comparison of literature data.

Equations should be labeled consecutively (numbers or Roman lowercase letters in parentheses) and mentioned by label in the text; *e. g.*, “(Eq. 1)” or “defined as in Eq. (a)”.

Physical data should be quoted with decimal points and negative exponents (*e. g.*, $25.8 \text{ J K}^{-1} \text{ mol}^{-1}$), and arranged as follows where possible – but in any event in the same order within the manuscript (when measurement conditions remain unchanged they need only be mentioned once, for instance in the column headings): m.p./b.p. 20°C ; $[\alpha]_{\text{D}}^{20} = -13.5$ ($c = 0.2$ in acetone) (a unit has to be given if it is different from $\text{deg cm}^3 \text{ g}^{-1} \text{ dm}^{-1}$ for $[\alpha]$ and from g cm^{-3} for c); ^1H NMR (200 MHz, $[\text{D}_8]\text{THF}$, 25°C , TMS): $\delta = 1.3$ (q, $^3J(\text{H,H}) = 8 \text{ Hz}$, 2 H; CH_2), 0.9 ppm (t, $^3J(\text{H,H}) = 8 \text{ Hz}$, 3 H; CH_3); IR(Nujol): $= 1790 \text{ cm}^{-1}$ (C=O); UV/Vis (*n*-hexane): $\lambda_{\text{max}}(\epsilon) = 320$ (5000), 270 nm (12000); MS (70 eV): m/z (%): 108 (20) $[\text{M}^+]$, 107 (60) $[\text{M}^+ - \text{H}]$, 91 (100) $[\text{C}_7\text{H}_7^+]$. Plane angles in products of units can have either $^\circ$ or deg as the unit.

Nomenclature, symbols, and units: The rules and recommendations of the International Union of Pure and Applied Chemistry (IUPAC), the International Union of Biochemistry (IUB), and the International Union of Pure and Applied Physics (IUPAP) should be adhered to.

7.3 Nucleotide and protein sequences

Nucleotides

New nucleotide data must be submitted and deposited in the DDBJ/EMBL/GenBank databases and an accession number obtained before the paper can be accepted for publication. Submission to any one of the three collaborating databanks is sufficient to ensure data entry in all. The accession number should be included in the manuscript, *e. g.*, as a footnote on the title page: 'Note: Nucleotide sequence data reported are available in the DDBJ/EMBL/GenBank databases under the accession number(s) –'. If requested the database will withhold release of data until publication. The most convenient method for submitting sequence data is by World Wide Web:

EMBL *via* Webin:

<http://www.ebi.ac.uk/embl/Submission/webin.html>

GenBank *via* BankIt:

<http://www.ncbi.nlm.nih.gov/BankIt/>

DDBJ *via* Sakura:

<http://sakura.ddbj.nig.ac.jp/>

Alternatively, the stand-alone submission tool 'Sequin' is available from the EBI at <http://www3.ebi.ac.uk/Services/Sequin> and from NCBI at <http://www.ncbi.nlm.nih.gov/Sequin/>

For special types of submissions (*e. g.*, genomes, bulk submissions *etc.*) additional submission systems are available from the above sites.

Database contact information:

EMBL: EMBL Nucleotide Sequence Submissions

European Bioinformatics Institute

Wellcome Trust Genome Campus, Hinxton,

Cambridge CB10 1SD, UK

Tel.: +44 1223 494400; fax: +44 1223 494472

E-mail: datasubs@ebi.ac.uk

WWW URL: <http://www.ebi.ac.uk>

GenBank: National Center for Biotechnology Information

National Library of Medicine,

Bldg. 38A, Rm 8 N-803

Bethesda, MD 20894, USA

Tel.: +1 301 496 2475; fax: +1 301 480 9241

E-mail: info@ncbi.nlm.nih.gov

WWW URL: <http://www.ncbi.nlm.nih.gov>

DDBJ: Center for Information Biology and

DNA Data Bank of Japan

National Institute of Genetics, 111 Yata,

Mishima, Shizuoka 411-8540, Japan

Tel.: +81 559 81 6853; fax: +81 559 81 6849

E-mail: ddbj@ddbj.nig.ac.jp

WWW URL: <http://www.ddbj.nig.ac.jp>

Proteins

Protein sequences, which have been determined by direct sequencing of the protein, must be submitted to Swiss-Prot at the EMBL Outstation – The European Bioinformatics Institute. Please note that we do not provide accession numbers, IN ADVANCE, for protein sequences that are the result of translation of nucleic acid sequences. These translations will automatically be forwarded to us from the EMBL nucleotide database and are assigned Swiss-Prot accession numbers on incorporation into TrEMBL.

Results from characterization experiments should also be submitted to Swiss-Prot at the EBI. This can include such information as function, subcellular location, subunit *etc.*

Contact information:

Swiss-Prot submissions,

European Bioinformatics Institute

Wellcome Trust Genome Campus, Hinxton

Cambridge, CB10 1SD, UK

Tel.: +44 1223 494400; fax: +44 1223 494472

E-mail: datasubs@ebi.ac.uk (for sequence submissions);

update@ebi.ac.uk (for characterization information)

WWW URL: <http://www.ebi.ac.uk>

8 Standard abbreviations

The abbreviations as listed below may be used without definition in the articles published in **MNF**. Please refer to Section 5.13 about the correct usage of abbreviations in **MNF**.

A	absorbance	FAB	fast atomic bombardment	PAGE	polyacrylamide gel electro- phoresis
ACES	2-[(2-amino-2-oxoethyl)amino]- ethanesulfonic acid	FIGE	field inversion gel electro- phoresis	PBS	phosphate-buffered saline
ACN	acetonitrile	FITC	fluorescein isothiocyanate	PC	personal computer
A/D	analog to digital converter	FT-ICR	Fourier transform-ion cyclotron resonance	PCR	polymerase chain reaction
amu	atomic mass unit	GC	gas chromatography	PED	pulsed electrochemical detection
API	atmospheric pressure ionization	GIF	graphic interchange format	PEG	polyethylene glycol
Bis	<i>N,N'</i> -methylenebisacrylamide	GST	glutathione-S-transferase	PFGE	pulsed-field gel electrophoresis
bp	base pairs	HEPES	<i>N</i> -(2-hydroxyethyl)piperazine- 2'-(2-ethane-sulfonic acid)	PFU	plaque-forming units
BSA	bovine serum albumin	HGP	human genome project	<i>pI</i>	isoelectric point
%C	cross-linking agent (g/100 mL)/ %T	HPCE	high-performance capillary elec- trophoresis	PMS	phenazine methosulfate
CAPS	3-(cyclohexylamino)-1-propane- sulfonic acid	HPLC	high-performance liquid chro- matography	PMSF	phenylmethylsulfonyl fluoride
CBB	Coomassie Brilliant Blue	HSA	human serum albumin	PMT	photomultiplier tube
CCD	charge-coupled device	HTML	hypertext mark-up language	ppm	parts <i>per</i> million
CE	capillary electrophoresis	HVR	hypervariable region	PSD	post-source decay
CEC	capillary electrochromatography	ICR	ion cyclotron resonance	PTFE	polytetrafluoroethylene
CFE	continuous flow electrophoresis	id	inside diameter	PTH	phenylthiohydantoin
CHAPS	3-[(3-cholamidopropyl)dimethyl- ammonio]-1-propanesulfonate	IEF	isoelectric focusing	PVA	polyvinyl alcohol
CHES	2-(<i>N</i> -cyclohexylamino)ethane- sulfonic acid	IMAC	immobilized metal affinity cap- ture	PVDF	polyvinylidene difluoride
CID	collision-induced dissociation	IPG	immobilized pH gradient	PVP	polyvinylpyrrolidone
CIEF	capillary isoelectric focusing	IT	ion trap	RFLP	restriction fragment length poly- morphism
CMC	critical micelle concentration	kbp	kilobase pairs	RIA	radioimmunoassay
Con A	Concanavalin A	kDa	kilodalton (molecular mass)	RP	reversed phase
CNS	central nervous system	LC	liquid chromatography	rpm	revolutions <i>per</i> minute
cpm	counts per minute	LED	light-emitting diode	RSD	relative standard deviation
CTAB	cetyltrimethylammonium bro- mide	LOD	limit of detection	RT-PCR	reverse transcriptase-PCR
CV	coefficient of variation	LOQ	limit of quantitation	SAGE	serial analysis of gene expression
CZE	capillary zone electrophoresis	mAb	monoclonal antibody	SD	standard deviation
1-D	one-dimensional	MALDI-	matrix-assisted laser desorption/ ionization mass spectrometry	SDS	sodium dodecyl sulfate
2-D	two-dimensional	MS	ionization mass spectrometry	SEC	size-exclusion chromatography
Da	dalton (molecular mass)	Mbp	megabase pairs	SEM	standard error of the mean
2-DE	two-dimensional gel electro- phoresis	MEKC	micellar electrokinetic capillary chromatography	SIM	selected ion monitoring
DMEM	Dulbecco's modified Eagle medium	MES	2-(<i>N</i> -morpholino)ethanesulfonic acid	S/N	signal-to-noise ratio
DMF	<i>N,N</i> -dimethylformamide	MHC	major histocompatibility com- plex	SPE	solid-phase extraction
DMSO	dimethyl sulfoxide	MOPS	3-(<i>N</i> -morpholino)propanesulfo- nic acid	SSCP	single-strand conformation poly- morphism
DOC	sodium deoxycholate	<i>M_r</i>	relative molecular mass (dimen- sionless)	ssDNA	single-stranded DNA
dsDNA	double-stranded DNA	MS	mass spectrometry	SSP	sample spot number
DTT	dithiothreitol	MS/MS	tandem mass spectrometry	STR	short tandem repeat
ECL	enhanced chemiluminescence	<i>m/z</i>	mass-to-charge ratio	%T	total gel concentration (acryl- amide plus cross-linking agent; g/100 mL)
EDTA	ethylenediaminetetraacetic acid	NC	nitrocellulose	TBS	Tris-buffered saline
EEO	electroendosmosis	NEPHGE	nonequilibrium pH gradient elec- trophoresis	TCA	trichloroacetic acid
EGTA	ethylene glycol-bis (β-amino- ethylether)- <i>N,N,N',N'</i> -tetraacetic acid	NMR	nuclear magnetic resonance	TEMED	<i>N,N,N',N'</i> -tetramethylethylene- diamine
EKC	electrokinetic chromatography	NP-40	Nonidet P-40	TFA	trifluoroacetic acid
ELISA	enzyme-linked immunosorbent assay	od	outside diameter	THF	tetrahydrofuran
EOF	electroosmotic flow	OD	optical density	TIC	total ion current
ER	endoplasmic reticulum	OFAGE	orthogonal field alternation gel electrophoresis	TLC	thin-layer chromatography
ESI	electrospray ionization	ORF	open reading frame	TOF	time of flight
EST	expressed sequence tag			Tris	tris(hydroxymethyl)amino- methane
				U	unit
				URL	uniform resource locator
				UV	ultraviolet
				Vh	volt × hours
				WWW	World Wide Web