

Biotransformations from and to methylated flavonoids

Hpw all went to shit

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noch nicht bekannt

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Preface

1 Abstracts

1.1 English Abstract

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1.2 Deutsche Zusammenfassung

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Thesis

2 Introduction

Some introductory text

2.1 Natural products and secondary metabolites

2.1.1 General

2.1.2 Classes of natural products

Terpenoids and Steroids

... here is some text

Polyketides and non-ribosomal peptides

... here is some text

Alkaloids

... here is some text

Phenylpropanoids

... here is some text

2.2 Alkylating reactions in nature

2.2.1 Methylation

2.2.2 Prenylation

2.2.3 Glycosylation

2.3 Usage and expansion of nature's reaction toolbox

2.3.1 Terpene synthases and elongases

2.3.2 Methyl transferases

2.3.3 Glycosyl transferases

2.3.4 Other important enzymes in biotech research

BMVOs

Esterases/Lipases

Oxidases

Lyases

Transaminases

2.4 Conclusion

3 Material And Methods

3.1 Materials

3.1.1 Chemicals

3.1.2 Instruments

3.1.3 Proteins

3.1.4 Plasmids

Table 3.1.: Plasmids used in this work.

name	description
pET28a(+)	...

3.1.5 Software

3.2 Microbiology

3.3 Molecular Biology

3.4 Protein biochemistry

3.5 Analytics

4 Evaluation of PFOMT towards the acceptance of long-chain SAM analogues

5 Enzymatic methylation of Non-catechols

testing the high-performance liquid chromatography (HPLC) and again the HPLC.
Blöälala phenylpropanoid and flavonoid O-methyl transferase (PFOMT) and
PFOMT

6 Development of an whole cell methyl transferase screening system

7 Acknowledgements

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Appendix

A Figures

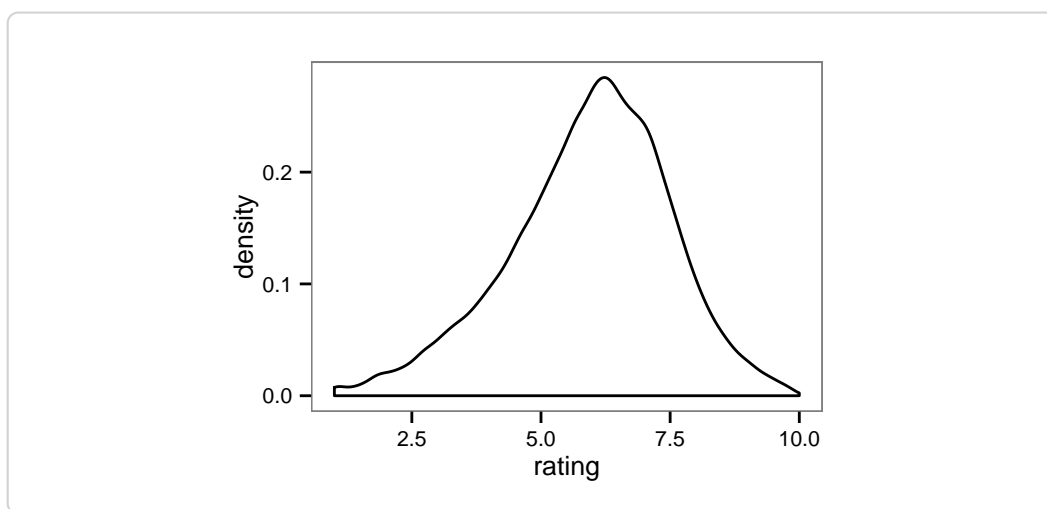


Figure A.1.: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem.

B Tables

Table B.1.: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem.

A	B	C	D	E	F	G	H	I
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9

C Affidavit

I hereby declare that this document has been written only by the undersigned and without any assistance from third parties. Furthermore, I confirm that no sources have been used in the preparation of this document other than those indicated in the thesis itself.

Date:....., Location:....., Signature:.....

Bibliography

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- Kopycki, Jakub G et al. (2008). "Biochemical and structural analysis of substrate promiscuity in plant Mg²⁺-dependent O-methyltransferases." In: *Journal of molecular biology* 378.1, pp. 154–64.
- Vogt, Thomas (2004). "Regiospecificity and kinetic properties of a plant natural product O-methyltransferase are determined by its N-terminal domain." In: *FEBS letters* 561.1-3, pp. 159–62.

Acronyms

HPLC high-performance liquid chromatography. 13

PFOMT phenylpropanoid and flavonoid O-methyl transferase. 13, 31

Glossary

PFOMT Phenylpropanoid and flavonoid O-methyl transferase from *Mesembryanthemum crystallinum*, which was first described by Ibdah (Ibdah et al., 2003).
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