

Journal of Molecular Catalysis B: Enzymatic 40 (2006) 163-165



www.elsevier.com/locate/molcatb

Subject Index

Acceptor reaction

Enzymatic synthesis and characterization of novel epigallocatechin gallate glucosides 1

Adsorption

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58

Alcaligenes sp

Chemoenzymatic synthesis of (S)- and (R)- γ -cyclogeraniols 64

Alcoholysis

Selective lipase-catalyzed preparation of diol monobenzoates by transesterification and alcoholysis reactions in organic solvents 81

Alkaloids

Propionibacterium acnes GehA lipase, an enzyme involved in acne development, can be successfully inhibited by defined natural substances 132 Inhibition of Candida rugosa lipase by saponins, flavonoids and alkaloids 138 Aspergillus carneus

Statistical optimization of medium components and growth conditions by response surface methodology to enhance lipase production by *Aspergillus carneus* 121

Bacillus spp.

Characterization of 1,3-regiospecific lipases from new *Pseudomonas* and *Bacillus* isolates 127

1,4-Benzoxazines

Synthesis and lipase-catalyzed resolution studies on novel (\pm) -2-(2-acetoxyethyl)-4-arylmethyl-3-oxo-3,4-dihydro-2H-1,4-benzoxazine-6-carboxylates 101

Benzoylation

Selective lipase-catalyzed preparation of diol monobenzoates by transesterification and alcoholysis reactions in organic solvents 81

Biocatalysis

Highly efficient immobilization of endo-1,3- β -D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Novel selective biocatalytic deacetylation studies on dihydropyrimidinones 93

Lipases: Useful biocatalysts for the preparation of pharmaceuticals 111 Biocompatibility

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

Biosensors

Biosensors for the evaluation of lipase activity 155

Candida rugosa lipase

Inhibition of C and C and C are C and C alkaloids 138

Carbamate

Probing conformations of the glycerol backbones of triacyglycerols in the active site of lipase by 1,2-cyclopentane-carbamates: The *meso* effect for the enzyme inhibition 86

Celite 545

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58

Chemoenzymatic method

A convenient chemoenzymatic synthesis of (1*S*,7a*S*)-1-hydroxy-5-oxo-4-(2'-carboxyethyl)-7a-methyltetrahydro-indane—a key intermediate of steroids 38

Conformation

Probing conformations of the glycerol backbones of triacyglycerols in the active site of lipase by 1,2-cyclopentane-carbamates: The *meso* effect for the enzyme inhibition 86

Cyclopentanediol

Probing conformations of the glycerol backbones of triacyglycerols in the active site of lipase by 1,2-cyclopentane-carbamates: The *meso* effect for the enzyme inhibition 86

γ-cyclogeraniol

Chemoenzymatic synthesis of (S)- and (R)- γ -cyclogeraniols 64

β-D-glucopyranoside

Synthesis of naturally occurring $\beta\text{-D-glucopyranoside}$ based on enzymatic $\beta\text{-glycosidation }8$

Dendritic cells

Serum pancreatic lipase [EC 3.1.1.3] activity, serum lipid profile and peripheral blood dendritic cell populations in normolipidemic males with psoriasis 144

Desymmetrization

Lipases: Useful biocatalysts for the preparation of pharmaceuticals 111

Determination

Biosensors for the evaluation of lipase activity 155

Dialkylglycerol esters

Design of new chromogenic substrates for the spectrophotometric assay of lipolytic activity of lipases 76

Diols

Selective lipase-catalyzed preparation of diol monobenzoates by transesterification and alcoholysis reactions in organic solvents $81\,$

Dual-layer biomimetic support

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

EGCG

Enzymatic synthesis and characterization of novel epigallocatechin gallate glucosides 1

Enantioselective acetylation

Chemoenzymatic synthesis of (S)- and (R)- γ -cyclogeraniols 64

Enantioselective deacetylation

Novel selective biocatalytic deacetylation studies on dihydropyrimidin
ones 93 Enantioselectivity $\,$

The preparation of polymerizable, optically active non-steroidal anti-inflammatory drugs derivatives by irreversible enzymatic methods $51\,$

Enzymatic hydrolysis

A convenient chemoenzymatic synthesis of (1S,7aS)-1-hydroxy-5-oxo-4-(2'-carboxyethyl)-7a-methyltetrahydro-indane—a key intermediate of steroids 38

Enzymatic resolution

Chemoenzymatic synthesis of (S)- and (R)- γ -cyclogeraniols 64 Lipases: Useful biocatalysts for the preparation of pharmaceuticals 111

164 Subject Index

Enzyme immobilization

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

Enzyme inhibitor

Probing conformations of the glycerol backbones of triacyglycerols in the active site of lipase by 1,2-cyclopentane-carbamates: The *meso* effect for the enzyme inhibition 86

FCCCD

Statistical optimization of medium components and growth conditions by response surface methodology to enhance lipase production by *Aspergillus carneus* 121

Flavonoids

Propionibacterium acnes GehA lipase, an enzyme involved in acne development, can be successfully inhibited by defined natural substances 132

Inhibition of Candida rugosa lipase by saponins, flavonoids and alkaloids 138

(S)-Flurbiprofen

Enantioselective properties of extracellular lipase from *Serratia marcescens* ES-2 for kinetic resolution of (*S*)-flurbiprofen 24

(R,S)-Flurbiprofen ethyl ester

Enantioselective properties of extracellular lipase from *Serratia marcescens* ES-2 for kinetic resolution of (*S*)-flurbiprofen 24

Gelatin

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

B-glucosidase

Synthesis of naturally occurring $\beta\text{-D-glucopyranoside}$ based on enzymatic $\beta\text{-glycosidation }8$

β-glycosidation

Synthesis of naturally occurring $\beta\text{-D-glucopyranoside}$ based on enzymatic $\beta\text{-glycosidation }8$

Glucanase

Highly efficient immobilization of endo-1,3- β -D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Glucoside

Enzymatic synthesis and characterization of novel epigallocatechin gallate glucosides 1

Immobilization

Highly efficient immobilization of endo-1,3-β-D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58

Inhibition

Inhibition of *Candida rugosa* lipase by saponins, flavonoids and alkaloids 138 Irreversible resolution

The preparation of polymerizable, optically active non-steroidal antiinflammatory drugs derivatives by irreversible enzymatic methods 51

Kinetic resolution

Enantioselective properties of extracellular lipase from *Serratia marcescens* ES-2 for kinetic resolution of (*S*)-flurbiprofen 24

Kinetics

Kinetics and thermodynamics of synthesis of propyl gallate by myceliumbound tannase from *Aspergillus niger* in organic solvent 44

Laminaran

Highly efficient immobilization of endo-1,3-β-D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Leuconostoc mesenteroides glucansucrase

Enzymatic synthesis and characterization of novel epigallocatechin gallate glucosides 1

Lipase

Enantioselective properties of extracellular lipase from *Serratia marcescens* ES-2 for kinetic resolution of (*S*)-flurbiprofen 24

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

The preparation of polymerizable, optically active non-steroidal antiinflammatory drugs derivatives by irreversible enzymatic methods 51

Chemoenzymatic synthesis of (S)- and (R)- γ -cyclogeraniols 64

Design of new chromogenic substrates for the spectrophotometric assay of lipolytic activity of lipases 76

Selective lipase-catalyzed preparation of diol monobenzoates by transesterification and alcoholysis reactions in organic solvents 81

Probing conformations of the glycerol backbones of triacyglycerols in the active site of lipase by 1,2-cyclopentane-carbamates: The *meso* effect for the enzyme inhibition 86

Synthesis and lipase-catalyzed resolution studies on novel (\pm)-2-(2-acetoxyethyl)-4-arylmethyl-3-oxo-3,4-dihydro-2H-1,4-benzoxazine-6-carboxylates 101

Lipases: Useful biocatalysts for the preparation of pharmaceuticals 111

Statistical optimization of medium components and growth conditions by response surface methodology to enhance lipase production by *Aspergillus carneus* 121

Characterization of 1,3-regiospecific lipases from new *Pseudomonas* and *Bacillus* isolates 127

Propionibacterium acnes GehA lipase, an enzyme involved in acne development, can be successfully inhibited by defined natural substances 132 Lipids

Serum pancreatic lipase [EC 3.1.1.3] activity, serum lipid profile and peripheral blood dendritic cell populations in normolipidemic males with psoriasis 144

Lipolytic activity

Design of new chromogenic substrates for the spectrophotometric assay of lipolytic activity of lipases 76

Lipolytic enzymes

Biosensors for the evaluation of lipase activity 155

Methods

Biosensors for the evaluation of lipase activity 155

Natural product synthesis

Synthesis of naturally occurring $\beta\text{-}D\text{-}glucopyranoside}$ based on enzymatic $\beta\text{-}glycosidation 8$

4-Nitrophenyl esters

Design of new chromogenic substrates for the spectrophotometric assay of lipolytic activity of lipases 76

Novozyme-435

Novel selective biocatalytic deacetylation studies on dihydropyrimidin
ones 93 $\ensuremath{\mathsf{NSAIDs}}$

The preparation of polymerizable, optically active non-steroidal anti-inflammatory drugs derivatives by irreversible enzymatic methods $51\,$

Organic solvent

Kinetics and thermodynamics of synthesis of propyl gallate by myceliumbound tannase from Aspergillus niger in organic solvent 44

Pancreatic lipase

Serum pancreatic lipase [EC 3.1.1.3] activity, serum lipid profile and peripheral blood dendritic cell populations in normolipidemic males with psoriasis 144

Pharmaceuticals

Lipases: Useful biocatalysts for the preparation of pharmaceuticals 111 4-Phenyl-3,4-dihydropyrimidinones

Novel selective biocatalytic deacetylation studies on dihydropyrimidinones 93 Poly(acrylonitrile-co-maleic acid)

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

Polyphenol oxidase

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58

Subject Index 165

Prodrug

The preparation of polymerizable, optically active non-steroidal antiinflammatory drugs derivatives by irreversible enzymatic methods 51

Propionibacterium acnes

Propionibacterium acnes GehA lipase, an enzyme involved in acne development, can be successfully inhibited by defined natural substances 132

Pseudomonas spp.

Characterization of 1,3-regiospecific lipases from new *Pseudomonas* and *Racillus* isolates 127

Psoriasis

Serum pancreatic lipase [EC 3.1.1.3] activity, serum lipid profile and peripheral blood dendritic cell populations in normolipidemic males with psoriasis 144

1,3-Regiospecificity

Characterization of 1,3-regiospecific lipases from new Pseudomonas and Bacillus isolates 127

Resolution

Synthesis and lipase-catalyzed resolution studies on novel (±)-2-(2-acetoxyethyl)-4-arylmethyl-3-oxo-3,4-dihydro-2*H*-1,4-benzoxazine-6-carboxylates 101

Response surface methodology

Statistical optimization of medium components and growth conditions by response surface methodology to enhance lipase production by *Aspergillus carneus* 121

Saponins

Propionibacterium acnes GehA lipase, an enzyme involved in acne development, can be successfully inhibited by defined natural substances 132 Inhibition of Candida rugosa lipase by saponins, flavonoids and alkaloids 138

Serratia marcescens ES-2

Enantioselective properties of extracellular lipase from *Serratia* marcescens ES-2 for kinetic resolution of (S)-flurbiprofen 24

Silica nanocomposite

Highly efficient immobilization of endo-1,3-β-D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Simulation

Kinetics and thermodynamics of synthesis of propyl gallate by myceliumbound tannase from Aspergillus niger in organic solvent 44

Sol-gel technology

Highly efficient immobilization of endo-1,3- β -D-glucanases (laminarinases) from marine mollusks in novel hybrid polysaccharide-silica nanocomposites with regulated composition 16

Spectrophotometric assay

Design of new chromogenic substrates for the spectrophotometric assay of lipolytic activity of lipases 76

Stability

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58

Steroids

A convenient chemoenzymatic synthesis of (1S,7aS)-1-hydroxy-5-oxo-4-(2'-carboxyethyl)-7a-methyltetrahydro-indane—a key intermediate of steroids 38

Substrates

Biosensors for the evaluation of lipase activity 155

Synthesis

Synthesis and lipase-catalyzed resolution studies on novel (±)-2-(2-acetoxyethyl)-4-arylmethyl-3-oxo-3,4-dihydro-2*H*-1,4-benzoxazine-6-carboxylates 101

Tannase

Kinetics and thermodynamics of synthesis of propyl gallate by myceliumbound tannase from Aspergillus niger in organic solvent 44

Terpenoid

A convenient chemoenzymatic synthesis of (1S,7aS)-1-hydroxy-5-oxo-4-(2'-carboxyethyl)-7a-methyltetrahydro-indane—a key intermediate of steroids 38

Thermodynamics

Kinetics and thermodynamics of synthesis of propyl gallate by myceliumbound tannase from Aspergillus niger in organic solvent 44

Transesterification

Selective lipase-catalyzed preparation of diol monobenzoates by transesterification and alcoholysis reactions in organic solvents 81

Triolein

Characterization of 1,3-regiospecific lipases from new *Pseudomonas* and *Bacillus* isolates 127

Ultrafiltration hollow fiber membrane

Entrusting poly(acrylonitrile-co-maleic acid) ultrafiltration hollow fiber membranes with biomimetic surfaces for lipase immobilization 30

Vinyl esters

The preparation of polymerizable, optically active non-steroidal antiinflammatory drugs derivatives by irreversible enzymatic methods 51

Water-miscible organic solvents

Direct immobilization of polyphenol oxidases on Celite 545 from ammonium sulphate fractionated proteins of potato (*Solanum tuberosum*) 58