

# SEQUENCE LISTING

<110> BASF Aktiengesellschaft  
 <120> Verfahren zur enzymatischen Reduktion von Alkenderivaten  
 <130> PF 58579  
 <160> 3  
 <170> PatentIn version 3.1  
 <210> 1  
 <211> 337  
 <212> PRT  
 <213> Bacillus subtilis  
 <400> 1

Ala Arg Lys Leu Phe Thr Pro Ile Thr Ile Lys Asp Met Thr Leu Lys  
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Asn Arg Ile Val Met Ser Pro Met Cys Met Tyr Ser Ser His Glu Lys  
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Asp Gly Lys Leu Thr Pro Phe His Met Ala His Tyr Ile Ser Arg Ala  
 35 40 45

Ile Gly Gln Val Gly Leu Ile Ile Val Glu Ala Ser Ala Val Asn Pro  
 50 55 60

Gln Gly Arg Ile Thr Asp Gln Asp Leu Gly Ile Trp Ser Asp Glu His  
 65 70 75 80

Ile Glu Gly Phe Ala Lys Leu Thr Glu Gln Val Lys Glu Gln Gly Ser  
 85 90 95

Lys Ile Gly Ile Gln Leu Ala His Ala Gly Arg Lys Ala Glu Leu Glu  
 100 105 110

Gly Asp Ile Phe Ala Pro Ser Ala Ile Ala Phe Asp Glu Gln Ser Ala  
 115 120 125

Thr Pro Val Glu Met Ser Ala Glu Lys Val Lys Glu Thr Val Gln Glu  
 130 135 140

Phe Lys Gln Ala Ala Ala Arg Ala Lys Glu Ala Gly Phe Asp Val Ile  
 145 150 155 160

Glu Ile His Ala Ala His Gly Tyr Leu Ile His Glu Phe Leu Ser Pro  
 165 170 175

Leu Ser Asn His Arg Thr Asp Glu Tyr Gly Gly Ser Pro Glu Asn Arg  
180 185 190

Tyr Arg Phe Leu Arg Glu Ile Ile Asp Glu Val Lys Gln Val Trp Asp  
195 200 205

Gly Pro Leu Phe Val Arg Val Ser Ala Ser Asp Tyr Thr Asp Lys Gly  
210 215 220

Leu Asp Ile Ala Asp His Ile Gly Phe Ala Lys Trp Met Lys Glu Gln  
225 230 235 240

Gly Val Asp Leu Ile Asp Cys Ser Ser Gly Ala Leu Val His Ala Asp  
245 250 255

Ile Asn Val Phe Pro Gly Tyr Gln Val Ser Phe Ala Glu Lys Ile Arg  
260 265 270

Glu Gln Ala Asp Met Ala Thr Gly Ala Val Gly Met Ile Thr Asp Gly  
275 280 285

Ser Met Ala Glu Glu Ile Leu Gln Asn Gly Arg Ala Asp Leu Ile Phe  
290 295 300

Ile Gly Arg Glu Leu Leu Arg Asp Pro Phe Phe Ala Arg Thr Ala Ala  
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Lys Gln Leu Asn Thr Glu Ile Pro Ala Pro Val Gln Tyr Glu Arg Gly  
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Trp

<210> 2  
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<213> Lycopersicon esculentum

<400> 2

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35 40 45

His Ala Ile Leu His Tyr Ser Gln Arg Ser Thr Asn Gly Gly Leu Leu  
50 55 60

Ile Gly Glu Ala Thr Val Ile Ser Glu Thr Gly Ile Gly Tyr Lys Asp  
65 70 75 80

Val Pro Gly Ile Trp Thr Lys Glu Gln Val Glu Ala Trp Lys Pro Ile  
85 90 95

Val Asp Ala Val His Ala Lys Gly Gly Ile Phe Phe Cys Gln Ile Trp  
100 105 110

His Val Gly Arg Val Ser Asn Lys Asp Phe Gln Pro Asn Gly Glu Asp  
115 120 125

Pro Ile Ser Cys Thr Asp Arg Gly Leu Thr Pro Gln Ile Arg Ser Asn  
130 135 140

Gly Ile Asp Ile Ala His Phe Thr Arg Pro Arg Arg Leu Thr Thr Asp  
145 150 155 160

Glu Ile Pro Gln Ile Val Asn Glu Phe Arg Val Ala Ala Arg Asn Ala  
165 170 175

Ile Glu Ala Gly Phe Asp Gly Val Glu Ile His Gly Ala His Gly Tyr  
180 185 190

Leu Ile Asp Gln Phe Met Lys Asp Gln Val Asn Asp Arg Ser Asp Lys  
195 200 205

Tyr Gly Gly Ser Leu Glu Asn Arg Cys Arg Phe Ala Leu Glu Ile Val  
210 215 220

Glu Ala Val Ala Asn Glu Ile Gly Ser Asp Arg Val Gly Ile Arg Ile  
225 230 235 240

Ser Pro Phe Ala His Tyr Asn Glu Ala Gly Asp Thr Asn Pro Thr Ala  
245 250 255

Leu Gly Leu Tyr Met Val Glu Ser Leu Asn Lys Tyr Asp Leu Ala Tyr  
260 265 270

Cys His Val Val Glu Pro Arg Met Lys Thr Ala Trp Glu Lys Ile Glu

275

280

285

Cys Thr Glu Ser Leu Val Pro Met Arg Lys Ala Tyr Lys Gly Thr Phe  
 290 295 300

Ile Val Ala Gly Gly Tyr Asp Arg Glu Asp Gly Asn Arg Ala Leu Ile  
 305 310 315 320

Glu Asp Arg Ala Asp Leu Val Ala Tyr Gly Arg Leu Phe Ile Ser Asn  
 325 330 335

Pro Asp Leu Pro Lys Arg Phe Glu Leu Asn Ala Pro Leu Asn Lys Tyr  
 340 345 350

Asn Arg Asp Thr Phe Tyr Thr Ser Asp Pro Ile Val Gly Tyr Thr Asp  
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Tyr Pro Phe Leu Glu Thr Met Thr  
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&lt;210&gt; 3

&lt;211&gt; 396

&lt;212&gt; PRT

&lt;213&gt; Lycopersicon esculentum

&lt;400&gt; 3

Met Ala Ser Ser Ala Gln Asp Gly Asn Asn Pro Leu Phe Ser Pro Tyr  
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Lys Met Gly Lys Phe Asn Leu Ser His Arg Val Val Leu Ala Pro Met  
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Thr Arg Cys Arg Ala Leu Asn Asn Ile Pro Gln Ala Ala Leu Gly Glu  
 35 40 45

Tyr Tyr Glu Gln Arg Ala Thr Ala Gly Gly Phe Leu Ile Thr Glu Gly  
 50 55 60

Thr Met Ile Ser Pro Thr Ser Ala Gly Phe Pro His Val Pro Gly Ile  
 65 70 75 80

Phe Thr Lys Glu Gln Val Arg Glu Trp Lys Lys Ile Val Asp Val Val  
 85 90 95

His Ala Lys Gly Ala Val Ile Phe Cys Gln Leu Trp His Val Gly Arg  
 100 105 110

Ala Ser His Glu Val Tyr Gln Pro Ala Gly Ala Ala Pro Ile Ser Ser  
115 120 125

Thr Glu Lys Pro Ile Ser Asn Arg Trp Arg Ile Leu Met Pro Asp Gly  
130 135 140

Thr His Gly Ile Tyr Pro Lys Pro Arg Ala Ile Gly Thr Tyr Glu Ile  
145 150 155 160

Ser Gln Val Val Glu Asp Tyr Arg Arg Ser Ala Leu Asn Ala Ile Glu  
165 170 175

Ala Gly Phe Asp Gly Ile Glu Ile His Gly Ala His Gly Tyr Leu Ile  
180 185 190

Asp Gln Phe Leu Lys Asp Gly Ile Asn Asp Arg Thr Asp Glu Tyr Gly  
195 200 205

Gly Ser Leu Ala Asn Arg Cys Lys Phe Ile Thr Gln Val Val Gln Ala  
210 215 220

Val Val Ser Ala Ile Gly Ala Asp Arg Val Gly Val Arg Val Ser Pro  
225 230 235 240

Ala Ile Asp His Leu Asp Ala Met Asp Ser Asn Pro Leu Ser Leu Gly  
245 250 255

Leu Ala Val Val Glu Arg Leu Asn Lys Ile Gln Leu His Ser Gly Ser  
260 265 270

Lys Leu Ala Tyr Leu His Val Thr Gln Pro Arg Tyr Val Ala Tyr Gly  
275 280 285

Gln Thr Glu Ala Gly Arg Leu Gly Ser Glu Glu Glu Glu Ala Arg Leu  
290 295 300

Met Arg Thr Leu Arg Asn Ala Tyr Gln Gly Thr Phe Ile Cys Ser Gly  
305 310 315 320

Gly Tyr Thr Arg Glu Leu Gly Ile Glu Ala Val Ala Gln Gly Asp Ala  
325 330 335

Asp Leu Val Ser Tyr Gly Arg Leu Phe Ile Ser Asn Pro Asp Leu Val  
340 345 350

Met Arg Ile Lys Leu Asn Ala Pro Leu Asn Lys Tyr Asn Arg Lys Thr  
355 360 365

Phe Tyr Thr Gln Asp Pro Val Val Gly Tyr Thr Asp Tyr Pro Phe Leu  
370 375 380

Gln Gly Asn Gly Ser Asn Gly Pro Leu Ser Arg Leu  
385 390 395