

PhoenixTemp26783.tmp.txt  
SEQUENCE LISTING

<110> BASF Plant Science GmbH  
Wiig, Aaron

<120> COMPOSITIONS AND METHODS USING RNA INTERFERENCE FOR CONTROL OF  
NEMATODES

<130> PF 58859

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<170> PatentIn version 3.4

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Ser Cys Leu Ala Ser Thr Phe Ser Val Pro Ile Ser Ile Tyr Val Phe  
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Thr Met Pro Leu Pro Tyr Leu Gly Val Ala Ser Ser Leu Pro Thr Gly  
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&lt;223&gt; primer sequence

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PhoenixTemp26783.tmp.txt

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PhoenixTemp26783.tmp.txt

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Gly Gly Ala Trp Val Thr Ser Asp Asp Val Gly Gly Arg Glu Glu Lys  
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Val Gly Pro Cys Ser Tyr Ala Val Glu Asp Arg Arg Val Ala Glu Asp  
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Gly Gly Ser Asp Ala Val Val Gly Ser Arg Asn Arg Val Val Glu Val  
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Ala Ala Ala Ala Val Ala Thr Val Val Leu Gly Val Gly Asn Arg Val  
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Leu Tyr Lys Leu Ala Leu Val Pro Leu Lys His Tyr Pro Phe Phe Leu  
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Ala Gln Leu Ala Thr Phe Gly Tyr Val Ile Val Tyr Phe Ala Ile Leu  
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Tyr Ile Arg His His Ala Gly Ile Val Thr Asp Glu Met Leu Asp Ala  
145 150 155 160

Pro Lys Ala Pro Phe Ile Val Val Gly Leu Leu Glu Ala Leu Ala Ala  
165 170 175

Ala Thr Gly Met Ala Ala Gly Ala Ile Leu Ser Gly Ala Ser Ile Pro  
180 185 190

Ile Leu Ser Gln Thr Phe Leu Val Trp Gln Ile Leu Leu Ser Ile Ile  
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PhoenixTemp26783.tmp.txt

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Val Thr Ile Gly Val Val Val Thr Val Ala Ser Gly Ala Gly Ala Gly  
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Leu Asp Ser Ser Arg Lys Leu Lys Gly Gly Cys Cys Met Asp Leu Phe  
275 280 285

Val Val Asn Ser Tyr Gly Ser Ala Phe Gln Ala Leu Phe Val Cys Leu  
290 295 300

Leu Leu Pro Phe Leu Ser Lys Leu Trp Gly Ile Pro Phe Ser Gln Leu  
305 310 315 320

Pro Asn Tyr Leu Lys Asp Gly Ala Ala Cys Phe Leu Asn Phe Gly Thr  
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Leu Ser Ser Gly Cys Asp Gly Ala Pro Leu Leu Pro Leu Leu Phe Ile  
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Ile Val Asn Ile Gly Phe Asn Ile Ala Leu Leu His Leu Leu Lys Ile  
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Ser Ser Ala Val Val Ser Cys Leu Ala Ser Thr Phe Ser Val Pro Ile  
370 375 380

Ser Ile Tyr Val Phe Thr Met Pro Leu Pro Tyr Leu Gly Val Ala Ser  
385 390 395 400

Ser Leu Pro Thr Gly Phe Met Ala Gly Ala Ile Ile Leu Ile Leu Gly  
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Val Arg Met Asn Arg Arg Lys Gly Ile Val Leu Arg Gly Arg Arg Leu



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Val Val Ala Glu Ala Glu Ala Met Gly Arg Gly Gly Val Arg Val Arg  
50 55 60

Ser Asp Gly Gly Gly Glu Glu Arg Val Glu Lys Trp Ser Tyr Gly Ser  
65 70 75 80

Glu Asp Arg Arg Arg Gly Asp Leu Val Val Val Glu Glu Lys Glu Asp  
85 90 95

Val Gly Cys Ala Gly Gly Gly Cys Glu Gly Asp Arg Arg Met Lys Val  
100 105 110

Val Ile Ala Ala Ala Phe Thr Val Val Leu Gly Val Gly Asn Arg Val  
115 120 125

Leu Tyr Lys Leu Ala Leu Val Pro Leu Lys His Tyr Pro Phe Phe Leu  
130 135 140

Ala Gln Leu Ala Thr Val Gly Tyr Val Leu Val Tyr Phe Ser Ile Leu  
145 150 155 160

Ser Leu Arg Tyr Asn Ala Gly Ile Val Thr Asp Glu Met Leu Ser Leu  
165 170 175

Pro Lys Thr Pro Tyr Val Ala Val Gly Leu Leu Glu Ala Leu Gly Ala  
180 185 190

Ala Thr Gly Met Ala Ala Gly Ala Ile Leu Ser Gly Ala Ser Ile Pro  
195 200 205

Ile Leu Ser Gln Ser Phe Leu Val Trp Gln Leu Leu Leu Ser Ala Ile  
210 215 220

Phe Leu Gly Arg Arg Tyr Lys Val Asn Gln Leu Leu Gly Cys Phe Leu  
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Val Ala Ile Gly Val Ile Ile Thr Val Ala Ser Gly Ser Ser Ala Gly  
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Ala Ser Leu Lys Gly Ala Gly Ile Phe Trp Ser Leu Leu Met Met Val  
260 265 270

Ser Phe Leu Phe Gln Ala Ala Asp Thr Val Leu Lys Glu Arg Ile Phe  
275 280 285

Leu Lys Ala Ala Glu Arg Leu Lys Gly Gly Ser Val Asp Leu Phe Val  
290 295 300

Val Asn Ser Tyr Gly Ser Ala Phe Gln Ala Leu Phe Ile Cys Leu Leu  
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PhoenixTemp26783.tmp.txt

Leu Pro Phe Leu Ser Lys Leu Trp Gly Val Pro Phe Ser His Leu Pro  
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Asn Tyr Leu Lys Asp Gly Ala Ala Cys Phe Leu Asn Ile Gly Ser Leu  
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Ser Ser Gly Cys Asp Gly Ala Pro Leu Leu Pro Leu Leu Phe Val Val  
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Val Asn Met Gly Phe Asn Ile Ser Leu Leu His Leu Leu Lys Ile Ser  
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Ser Ala Val Val Ser Cys Leu Ala Ser Thr Phe Ser Val Pro Ile Ala  
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Val Tyr Met Phe Thr Leu Pro Leu Pro Tyr Leu Gly Val Ala Ser Ser  
405 410 415

Leu Pro Pro Ala Phe Val Thr Gly Ala Ile Ile Leu Leu Val Gly Leu  
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Ser Pro Ser Ile His  
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 35 40 45

His Phe Pro Ser Arg Ser Pro Leu His Gly Val Ser Ser His Asn Ser  
 50 55 60

Pro Lys Thr Pro Asn Phe Arg Val Arg Ala Ser Ala Asp Asn Ser Gln  
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Val Ile Leu Ala Val Val Asn Arg Val Phe Tyr Lys Leu Ala Leu Val  
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Pro Leu Lys Gln Tyr Pro Phe Phe Leu Ala Gln Phe Thr Thr Phe Gly  
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Tyr Ala Ala Ile Tyr Phe Ser Ile Leu Tyr Ile Arg Tyr Arg Ala Gly  
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Ala Met Leu Pro Gly Pro Ala Ile Pro Leu Leu Asn Gln Thr Phe Leu  
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Val Trp Gln Leu Ala Leu Ser Thr Leu Ile Leu Gly Arg Lys Tyr Ser  
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Phe Asn Gln Ile Leu Gly Cys Phe Leu Val Ala Ala Gly Val Val Thr  
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Ala Ser Ile Ile Lys Glu Phe Val Phe Val Asp Ala Ala Thr Arg Leu  
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Arg Gly Ile Pro Phe Pro Gln Leu Pro Ser Tyr Leu Lys Ala Gly Ala  
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Gly Cys Phe Leu Asn Ile Gly Ser Asn Ile Pro Gly Cys Asp Gly Ala  
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Pro Leu Leu Pro Leu Leu Tyr Leu Ala Thr Asn Ile Ala Phe Asn Ile  
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Ser Leu Leu Asn Leu Val Lys Ile Ser Ser Ala Val Val Ser Thr Leu  
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Ala Ala Met Ala Ser Val Pro Ile Ser Ile Tyr Val Leu Ser Leu Pro  
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Leu Pro Tyr Leu Pro Gln Gly Ala Ser Leu Ser Pro Phe Phe Leu Phe  
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Lys Gln Tyr Pro Phe Phe Leu Ala Gln Leu Thr Thr Phe Gly Tyr Val
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Thr Gly Asp Met Leu Ala Leu Pro Lys Arg Arg Leu Ala Ala Ile Gly  
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Leu Leu Glu Ala Leu Gly Leu Ala Ala Gly Met Ser Ala Gly Ala Met  
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Leu Pro Gly Pro Ala Ile Pro Ile Leu Ser Gln Ser Phe Leu Val Trp  
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Gln Leu Ile Phe Ser Ala Leu Leu Leu Gly Arg Thr Tyr Ser Met Arg  
115 120 125

Gln Ile Ile Gly Cys Phe Leu Val Ala Ser Gly Val Ile Leu Ala Val  
130 135 140

Ala Ser Gly Ala Asn Glu Gly Gln Phe Leu Ser Glu Val Lys Phe Ile  
145 150 155 160

Trp Leu Ala Leu Met Val Ala Ser Ser Ala Phe Gln Ala Gly Ala Ser  
165 170 175

Ile Leu Lys Glu Ser Val Phe Ile Asp Gly Ala Lys Arg Leu Lys Gly  
180 185 190

Arg Arg Pro Asp Ile Phe Val Val Asn Ser Phe Gly Ser Gly Phe Gln  
195 200 205

Ala Leu Phe Val Phe Leu Leu Leu Pro Leu Leu Ser Asn Leu Lys Gly  
210 215 220

Ile Lys Phe Ala Glu Leu Pro Ala Tyr Leu Asn Gly Gly Ala Glu Cys  
225 230 235 240

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Leu Pro Leu Leu Phe Ile Leu Val Asn Met Ala Phe Asn Ile Ala Leu  
260 265 270

Leu Asn Leu Val Lys Leu Ser Ser Ala Leu Val Ala Ser Leu Thr Ala  
275 280 285

Thr Ser Ala Val Pro Ile Ser Ile Tyr Ile Leu Ser Leu Pro Leu Pro  
290 295 300

Tyr Ile Pro His Gly Ala Glu Leu Ser Ser Ser Phe Ile Leu Gly Gly  
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Val Gly Ser Ala Ala Gly Val Gly Arg Ser Ala Gly Met Glu Val Ala  
50 55 60

Ile Ala Thr Ala Ala Val Val Ala Met Gly Thr Gly Asn Arg Val Leu  
65 70 75 80

Tyr Lys Leu Ala Leu Val Pro Leu Arg Asp Tyr Pro Phe Phe Leu Ala  
85 90 95

Gln Leu Ala Thr Phe Gly Leu Cys Asp Gly Cys Leu Val Leu Gly Val  
100 105 110

His Leu Ser Gly Arg Ile Thr Gly Arg Asp Phe Leu Leu Val Asn Ile  
115 120 125

Ser Ile Pro Val Arg Leu Cys Ala Phe Phe Leu Val Gly Gly Arg Ala  
130 135 140

Arg Glu Leu Ala Phe Gln Ala Ser Trp Arg Leu Tyr Gln Gln His Gln  
145 150 155 160

Gly Trp Leu Leu Glu Thr Tyr Leu Val Trp Gln Leu Leu Leu Ser Ala  
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Ile Phe Leu Lys Arg Arg Tyr Arg Ile Asn Glu Ile Thr Gly Cys Phe  
180 185 190

Leu Val Thr Val Gly Val Ile Ile Thr Val Ala Ser Gly Ser Ser Ala  
195 200 205

Gly Ala Ser Leu Lys Gly Thr Gly Ile Leu Trp Pro Leu Leu Met Ile  
210 215 220

Ile Ser Phe Phe Leu Gln Ala Ala Asp Thr Val Leu Lys Glu Ile Ile  
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Phe Leu Asn Ala Ala Lys Lys Leu Lys Gly Gly Ser Val Asp Leu Phe  
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260 265 270

Leu Leu Pro Phe Leu Ser Lys Leu Trp Gly Val Pro Phe His Gln Leu  
275 280 285

Pro Thr Tyr Ile Arg Asp Gly Thr Ala Cys Phe Leu Asn Met Gly Ser  
290 295 300

Leu Ser Ser Gly Cys Glu Gly Ala Pro Leu Leu Pro Leu Leu Phe Val  
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Leu Val Asn Met Gly Phe Asn Ile Ser Leu Leu His Leu Leu Lys Ile



325

330

335

Ser Ser Ala Val Val Ser Ser Leu Ala Ser Thr Phe Ser Val Pro Leu  
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Thr Leu Pro Pro Gly Phe Val Ala Gly Ala Met Phe Leu Asp Gly Thr  
 370 375 380

Arg Thr Arg Glu Lys Arg Arg Ser Ile Ile Thr Thr Gly Met Lys Ser  
 385 390 395 400

Lys Asn Gly Gly Gly Gly Gly Ser Gly Gly Asn Thr Asn Gly Ser His  
 405 410 415

Arg Arg Ile Thr Ala Ala Ala Ala Ile Asn Ile Ile Arg Thr Leu Leu  
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Ser Ile Leu Ala Ser Pro Ala Ala Val Asp Trp Thr Ala Ser Ser Gly  
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Arg Arg Leu Thr Gly Cys Ser Thr Leu Arg Cys Ser Ser Val Asp Leu  
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&lt;211&gt; 1488

&lt;212&gt; DNA

&lt;213&gt; Oryza sativa

&lt;400&gt; 23

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Ala Ala His Val Arg Arg Ile Glu Ala Ala Ala Trp Leu Gly Ala Arg  
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Arg Ala Thr Arg Arg Glu Asp Ala Ala Ala Arg Cys Ala Ala Ala Gly  
65 70 75 80

Glu Val Val Gly Ser Ala Ala Gly Val Gly Arg Ser Ala Gly Met Glu  
85 90 95

Val Ala Ile Ala Thr Ala Ala Val Val Ala Met Gly Thr Gly Asn Arg  
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Val Leu Tyr Lys Leu Ala Leu Val Pro Leu Arg Asp Tyr Pro Phe Phe  
115 120 125

PhoenixTemp26783.tmp.txt

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 Ala Ala Ser Gly Met Ala Ala Gly Ala Val Leu Ser Gly Ala Ser Ile  
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 385 390 395 400

PhoenixTemp26783.tmp.txt

Thr Leu Pro Pro Gly Phe Val Ala Gly Ala Val Leu Gly Asp Ala Ser  
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Thr Val Ser Arg Arg Asp Lys Asn Gln Gly Glu Lys Lys Glu His His  
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435 440 445

Ala Thr Pro Ile Gly Glu Pro Gln Gly Gly Ser Pro Pro Pro Pro Pro  
450 455 460

Ser Thr Ser Ser Gly Arg Ser Cys Pro Ser Trp Pro Pro Leu Gln Leu  
465 470 475 480

Leu Thr Gly Leu Pro Pro Pro Ala Gly Gly Ser Pro Val Ala Pro Leu  
485 490 495

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Ser Ile Gly  
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65 70 75 80

Ala Gly Val Leu Trp Ile Leu Leu Met Val Leu Ser Phe Leu Leu Gln  
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Arg Leu Lys Gly Ala Ser Leu Asp Leu Phe Ile Val Asn Ser Tyr Gly  
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PhoenixTemp26783.tmp.txt

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Gly Ala Pro Phe Leu Pro Leu Leu Phe Val Ile Met Asn Ile Gly Tyr  
180 185 190

Asn Ile Ala Leu Leu Arg Leu Leu Lys Ile Ser Ser Ala Val Val Ser  
195 200 205

Cys Leu Ala Ser Thr Val Ser Val Pro Ile Ala Val Phe Leu Phe Thr  
210 215 220

Met Pro Leu Pro Tyr Leu Gly Val Ala Ser Ser Leu Pro Lys Gly Phe  
225 230 235 240

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