

<110> CJ CheilJedang Corporation

<120> STRAIN FOR PRODUCING HIGHLY CONCENTRATED L-GLUTAMIC ACID, AND L-GLUTAMIC ACID PRODUCTION METHOD USING SAME

<130> OPA21393

<150> KR 10-2021-0085738

<151> 2021-06-30

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<170> KoPatentIn 3.0

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Ile Ile Met Ala Glu Lys Leu Ala Ile Leu Glu Asp Pro Gly His Ile
35 40 45

Thr Ser Cys Asp Phe Asn Ala Val Leu Ala Cys Gly Asp Val Met Arg
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Ser Gly Gln Ala Asn Ala Phe Gly Ile Pro Asn Pro Leu Ile Gly Ile
65 70 75 80

Ala Gly Phe Ala Ala Val Ala Ile Ile Gly Ala Gly Ile Leu Ala Gly
85 90 95

Gly Arg Phe Arg Gly Trp Phe Trp Phe Gly Ala Gln Ala Gly Leu Thr
100 105 110

Phe Ala Met Met Phe Cys His Trp Leu Ala Tyr Gln Ser Met Ser Val
115 120 125

Ile Arg Ala Leu Cys Pro Tyr Cys Met Gly Val Trp Thr Val Ser Ile
130 135 140

Ile Met Phe Val Leu Val Thr Ala Trp Asn Val Lys Thr Phe Ser Gly
 145 150 155 160

Ser Asp Ser Thr Phe Val Asn Ala Leu Tyr Lys Tyr Lys Trp Val Ile
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Arg Tyr Met Phe
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 gatgtcatgc gttccggcca agctaacgcg ttcggcatcc cgaatccgct catcggcatc 240
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 ggttggttct ggttcggcgc ccaggccgga ctacttttg ccatgatgtt ctgccactgg 360
 ctcgcctacc aatccatgtc cgtcatccgc gcgctctgcc cttactgcat gggcgtgtgg 420
 accgtatcga tcatcatgtt cgtgctggtc actgcatgga atgtgaaaac tttcagcggc 480
 tccgacagca cgttcgtcaa cgactgtac aaatacaagt gggtcatcgc gatcgtctgg 540
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20 25 30

Thr Glu Ala Gln Pro Ser Ala Pro Lys Glu Ser Ala Lys Pro Ala Pro
35 40 45

Lys Ala Ala Pro Ala Ala Lys Ala Ala Pro Arg Val Glu Thr Lys Pro
50 55 60

Ala Ala Lys Thr Ala Pro Lys Ala Lys Glu Ser Ser Val Pro Gln Gln
65 70 75 80

Pro Lys Leu Pro Glu Pro Gly Gln Thr Pro Ile Arg Gly Ile Phe Lys
85 90 95

Ser Ile Ala Lys Asn Met Asp Ile Ser Leu Glu Ile Pro Thr Ala Thr
 100 105 110
 Ser Val Arg Asp Met Pro Ala Arg Leu Met Phe Glu Asn Arg Ala Met
 115 120 125
 Val Asn Asp Gln Leu Lys Arg Thr Arg Gly Gly Lys Ile Ser Phe Thr
 130 135 140
 His Ile Ile Gly Tyr Ala Met Val Lys Ala Val Met Ala His Pro Asp
 145 150 155 160
 Met Asn Asn Ser Tyr Asp Val Ile Asp Gly Lys Pro Thr Leu Ile Val
 165 170 175
 Pro Glu His Ile Asn Leu Gly Leu Ala Ile Asp Leu Pro Gln Lys Asp
 180 185 190
 Gly Ser Arg Ala Leu Val Val Ala Ala Ile Lys Glu Thr Glu Lys Met
 195 200 205
 Asn Phe Ser Glu Phe Leu Ala Ala Tyr Glu Asp Ile Val Thr Arg Ser
 210 215 220
 Arg Lys Gly Lys Leu Thr Met Asp Asp Tyr Gln Gly Val Thr Val Ser
 225 230 235 240
 Leu Thr Asn Pro Gly Gly Ile Gly Thr Arg His Ser Val Pro Arg Leu
 245 250 255
 Thr Lys Gly Gln Gly Thr Ile Ile Gly Val Gly Ser Met Asp Tyr Pro
 260 265 270
 Ala Glu Phe Gln Gly Ala Ser Glu Asp Arg Leu Ala Glu Leu Gly Val
 275 280 285
 Gly Lys Leu Val Thr Ile Thr Ser Thr Tyr Asp His Arg Val Ile Gln
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 Gly Ala Val Ser Gly Glu Phe Leu Arg Thr Met Ser Arg Leu Leu Thr
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 Asp Asp Ser Phe Trp Asp Glu Ile Phe Asp Ala Met Asn Val Pro Tyr
 325 330 335
 Thr Pro Met Arg Trp Ala Gln Asp Val Pro Asn Thr Gly Val Asp Lys
 340 345 350
 Asn Thr Arg Val Met Gln Leu Ile Glu Ala Tyr Arg Ser Arg Gly His
 355 360 365

Leu Ile Ala Asp Thr Asn Pro Leu Ser Trp Val Gln Pro Gly Met Pro
 370 375 380
 Val Pro Asp His Arg Asp Leu Asp Ile Glu Thr His Ser Leu Thr Ile
 385 390 395 400
 Trp Asp Leu Asp Arg Thr Phe Ser Val Gly Gly Phe Gly Gly Lys Glu
 405 410 415
 Thr Met Thr Leu Arg Glu Val Leu Ser Arg Leu Arg Ala Ala Tyr Thr
 420 425 430
 Leu Lys Val Gly Ser Glu Tyr Thr His Ile Leu Asp Arg Asp Glu Arg
 435 440 445
 Thr Trp Leu Gln Asp Arg Leu Glu Ala Gly Met Pro Lys Pro Thr Gln
 450 455 460
 Ala Glu Gln Lys Tyr Ile Leu Gln Lys Leu Asn Ala Ala Glu Ala Phe
 465 470 475 480
 Glu Asn Phe Leu Gln Thr Lys Tyr Val Gly Gln Lys Arg Phe Ser Leu
 485 490 495
 Glu Gly Ala Glu Ala Leu Ile Pro Leu Met Asp Ser Ala Ile Asp Thr
 500 505 510
 Ala Ala Gly Gln Gly Leu Asp Glu Val Val Ile Gly Met Pro His Arg
 515 520 525
 Gly Arg Leu Asn Val Leu Phe Asn Ile Val Gly Lys Pro Leu Ala Ser
 530 535 540
 Ile Phe Asn Glu Phe Glu Gly Gln Met Glu Gln Gly Gln Ile Gly Gly
 545 550 555 560
 Ser Gly Asp Val Lys Tyr His Leu Gly Ser Glu Gly Gln His Leu Gln
 565 570 575
 Met Phe Gly Asp Gly Glu Ile Lys Val Ser Leu Thr Ala Asn Pro Ser
 580 585 590
 His Leu Glu Ala Val Asn Pro Val Met Glu Gly Ile Val Arg Ala Lys
 595 600 605
 Gln Asp Tyr Leu Asp Lys Gly Val Asp Gly Lys Thr Val Val Pro Leu
 610 615 620
 Leu Leu His Gly Asp Ala Ala Phe Ala Gly Leu Gly Ile Val Pro Glu

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Thr	Ile	Asn	Leu	Ala	Lys	Leu	Arg	Gly	Tyr	Asp	Val	Gly	Gly	Thr	Ile
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His	Ile	Val	Val	Asn	Asn	Gln	Ile	Gly	Phe	Thr	Thr	Thr	Pro	Asp	Ser
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	690					695					700				
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Ile	Asp	Leu	Val	Cys	Tyr	Arg	Leu	Arg	Gly	His	Asn	Glu	Ala	Asp	Asp
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Pro	Ser	Met	Thr	Gln	Pro	Lys	Met	Tyr	Glu	Leu	Ile	Thr	Gly	Arg	Glu
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Thr	Val	Arg	Ala	Gln	Tyr	Thr	Glu	Asp	Leu	Leu	Gly	Arg	Gly	Asp	Leu
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Ser	Asn	Glu	Asp	Ala	Glu	Ala	Val	Val	Arg	Asp	Phe	His	Asp	Gln	Met
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Glu	Ser	Val	Phe	Asn	Glu	Val	Lys	Glu	Gly	Gly	Lys	Lys	Gln	Ala	Glu
785					790					795					800
Ala	Gln	Thr	Gly	Ile	Thr	Gly	Ser	Gln	Lys	Leu	Pro	His	Gly	Leu	Glu
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Asn	Thr	Pro	Glu	Gly	Phe	Asn	Tyr	His	Pro	Arg	Val	Ala	Pro	Val	Ala
		835					840					845			
Lys	Lys	Arg	Val	Ser	Ser	Val	Thr	Glu	Gly	Gly	Ile	Asp	Trp	Ala	Trp
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Gly	Glu	Leu	Leu	Ala	Phe	Gly	Ser	Leu	Ala	Asn	Ser	Gly	Arg	Leu	Val
865					870					875					880
Arg	Leu	Ala	Gly	Glu	Asp	Ser	Arg	Arg	Gly	Thr	Phe	Thr	Gln	Arg	His
				885					890					895	

Ala Val Ala Ile Asp Pro Ala Thr Ala Glu Glu Phe Asn Pro Leu His
 900 905 910
 Glu Leu Ala Gln Ser Lys Gly Asn Asn Gly Lys Phe Leu Val Tyr Asn
 915 920 925
 Ser Ala Leu Thr Glu Tyr Ala Gly Met Gly Phe Glu Tyr Gly Tyr Ser
 930 935 940
 Val Gly Asn Glu Asp Ser Val Val Ala Trp Glu Ala Gln Phe Gly Asp
 945 950 955 960
 Phe Ala Asn Gly Ala Gln Thr Ile Ile Asp Glu Tyr Val Ser Ser Gly
 965 970 975
 Glu Ala Lys Trp Gly Gln Thr Ser Lys Leu Ile Leu Leu Leu Pro His
 980 985 990
 Gly Tyr Glu Gly Gln Gly Pro Asp His Ser Ser Ala Arg Ile Glu Arg
 995 1000 1005
 Phe Leu Gln Leu Cys Ala Glu Gly Ser Met Thr Val Ala Gln Pro Ser
 1010 1015 1020
 Thr Pro Ala Asn His Phe His Leu Leu Arg Arg His Ala Leu Ser Asp
 1025 1030 1035 1040
 Leu Lys Arg Pro Leu Val Ile Phe Thr Pro Lys Ser Met Leu Arg Asn
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 Lys Ala Ala Ala Ser Ala Pro Glu Asp Phe Thr Glu Val Thr Lys Phe
 1060 1065 1070
 Gln Ser Val Ile Asp Asp Pro Asn Val Ala Asp Ala Ala Lys Val Lys
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 Lys Val Met Leu Val Ser Gly Lys Leu Tyr Tyr Glu Leu Ala Lys Arg
 1090 1095 1100
 Lys Glu Lys Asp Gly Arg Asp Asp Ile Ala Ile Val Arg Ile Glu Met
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 Leu His Pro Ile Pro Phe Asn Arg Ile Ser Glu Ala Leu Ala Gly Tyr
 1125 1130 1135
 Pro Asn Ala Glu Glu Val Leu Phe Val Gln Asp Glu Pro Ala Asn Gln
 1140 1145 1150
 Gly Pro Trp Pro Phe Tyr Gln Glu His Leu Pro Glu Leu Ile Pro Asn
 1155 1160 1165

Met Pro Lys Met Arg Arg Val Ser Arg Arg Ala Gln Ser Ser Thr Ala
1170 1175 1180

Thr Gly Val Ala Lys Val His Gln Leu Glu Glu Lys Gln Leu Ile Asp
1185 1190 1195 1200

Glu Ala Phe Glu Ala
1205