

Untitled.ST25.txt  
SEQUENCE LISTING

<110> Kobenhavns Universitet  
<120> Cold-active beta-galactosidase, a method of producing same and use of such enzyme  
<130> P1089PC00  
<150> US 61/151,208  
<151> 2009-02-10  
<150> US 61/176,956  
<151> 2009-05-11  
<160> 12  
<170> PatentIn version 3.3  
<210> 1  
<211> 1041  
<212> PRT  
<213> Alkalilactibacillus ikkense  
<400> 1

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Glu Ala His Ala Thr Leu Val Pro Tyr Ser Asn Leu Glu Leu Ala Leu  
35 40 45

Lys Gly Glu Arg Thr Ala Ser Ser Phe Tyr Gln Ser Leu Asn Gly Ser  
50 55 60

Trp Gln Phe Ala Phe Ala Gln Glu Pro Thr Lys Arg Val Ile Asp Phe  
65 70 75 80

Tyr Arg Lys Asp Phe Asp His Arg Asp Trp Asp Ser Ile Lys Val Pro  
85 90 95

Ser His Trp Gln Leu Glu Gly Tyr Asp Tyr Pro Gln Tyr Thr Asn Thr  
100 105 110

Thr Tyr Pro Trp Val Glu Lys Glu Thr Ile Lys Pro Pro Phe Ala Pro  
115 120 125

Thr Asn Tyr Asn Pro Val Gly Gln Tyr Val Arg Thr Phe Glu Leu Pro  
130 135 140

Thr Asp Trp Asn Gly Ala Pro Val Tyr Leu Asn Phe Gln Gly Val Glu  
145 150 155 160

Ser Ala Phe Tyr Val Trp Ile Asn Gly Asp Leu Val Gly Tyr Ser Glu  
165 170 175

Side

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Asp Thr Phe Thr Pro Ala Glu Phe Asp Ile Thr Pro Tyr Leu Ile Glu  
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 Gly Glu Asn Lys Leu Ala Val Glu Val Tyr Arg Trp Ser Asp Ala Ser  
 195 200 205  
 Trp Leu Glu Asp Gln Asp Phe Trp Arg Leu Ser Gly Ile Phe Arg Asp  
 210 215 220  
 Val Tyr Leu Tyr Ala Thr Pro Ala Gln His Ile Asp Asp Phe Phe Val  
 225 230 235 240  
 Thr His Glu Leu Asp Ala Asp Tyr Arg Asn Ala Thr Leu Lys Ile Asp  
 245 250 255  
 Met Lys Val Arg Asp Tyr Phe Glu Ile Gly Glu Pro Val Thr Val Asn  
 260 265 270  
 Ala Met Leu Phe Asp Leu Asn Gly Asn Pro Val Leu Lys Gln Pro Leu  
 275 280 285  
 Leu Ser Ala Val Asp Phe Ser Gly Lys Glu Val Ala Asp Val Ser Val  
 290 295 300  
 Ile Thr Thr Ile Asp Asn Pro Leu Lys Trp Ser Ala Glu Asp Pro Asn  
 305 310 315 320  
 Leu Tyr Thr Leu Val Leu Ser Leu Val Asp Gln Asn Gly Lys Leu Leu  
 325 330 335  
 Glu Thr Glu Ser Cys Arg Val Gly Phe Arg Lys Phe Glu Arg Lys Asp  
 340 345 350  
 Gly Leu Met Gln Ile Asn Gly Lys Arg Ile Val Phe Lys Gly Thr Asn  
 355 360 365  
 Arg His Glu Phe Ala Ser Asp Lys Gly Arg Ala Ile Thr Ile Asp Asp  
 370 375 380  
 Met Val Asn Asp Ile Gln Leu Met Lys Gln His Asn Ile Asn Ala Val  
 385 390 395 400  
 Arg Thr Ser His Tyr Pro Asn His Pro Leu Trp Tyr Glu Leu Cys Asp  
 405 410 415  
 Thr Tyr Gly Leu Tyr Val Ile Asp Glu Thr Asn Leu Glu Thr His Gly  
 420 425 430  
 Thr Trp Val Tyr Gly Gln Lys Gly Leu Ala Glu Thr Ile Pro Gly Ser  
 435 440 445

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Leu Pro Lys Trp Thr Glu Asn Val Leu Asp Arg Cys Asn Ser Met Phe  
450 455 460

Gln Arg Asp Lys Asn His Pro Ser Ile Leu Asp Trp Ser Leu Gly Asn  
465 470 475 480

Glu Ser Phe Gly Gly Asp Asn Phe Leu Lys Met His Asp Phe Phe Thr  
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Glu Gln Asp Pro Ala Arg Leu Val His Tyr Glu Gly Ile Phe His Tyr  
500 505 510

Arg Glu Ser Glu Arg Ala Ser Asp Met Glu Ser Thr Met Tyr Ile Ser  
515 520 525

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

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 Pro Asn Phe Trp Arg<sub>805</sub> Ala Met Thr Asp Asn<sub>810</sub> Asp Arg Gly Asn Gly<sub>815</sub> Leu  
 Asp Gln Arg Ser<sub>820</sub> Gln Ile Trp Arg Asp<sub>825</sub> Ala Asn Glu Val Arg<sub>830</sub> Glu Leu  
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 Ser Tyr Trp<sub>915</sub> Asp Lys Gln Lys Gly<sub>920</sub> Ala Lys Ile Gly Leu<sub>925</sub> Tyr Gln Gly  
 Phe Val<sub>930</sub> Gly Asp Gln Tyr Val<sub>935</sub> Pro Tyr Leu Lys Pro<sub>940</sub> Gln Glu Cys Gly  
 Asn Lys Val Gly Val Arg<sub>950</sub> Ser Ala Glu Leu Val<sub>955</sub> Asn Asp Val Gly Val<sub>960</sub>  
 Gly Leu Ile Ile Ser<sub>965</sub> Gly Leu Pro Thr Leu<sub>970</sub> Glu Leu Asn Val Leu<sub>975</sub> Pro  
 Tyr Thr Pro Val<sub>980</sub> Gln Leu Glu Ser Ala<sub>985</sub> Asp His Ser Tyr Gln Leu Pro<sub>990</sub>  
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# Untitled.ST25.txt

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Side

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Untitled.ST25.txt

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