Title (en)

PROCESS FOR ACTIVATING HETEROLOGOUS, EUCARYOTIC PROTEINS GENETICALLY ENGINEERED AND PRESENTING DISULPHIDE BRIDGES AFTER THEIR EXPRESSION IN PROCARYOTIC CELLS.

Title (de)

VERFAHREN ZUR AKTIVIERUNG VON GENTECHNOLOGISCH HERGESTELLTEN, HETEROLOGEN, DISULFIDBRÜCKEN AUFWEISENDEN EUKARYONTISCHEN PROTEINEN NACH EXPRESSION IN PROKARYONTEN.

Title (fr)

PROCEDE D'ACTIVATION DE PROTEINES EUCARYOTES HETEROLOGUES PRODUITES PAR GENIE GENETIQUE ET PRESENTANT DES PONTS BISULFURES, APRES LEUR EXPRESSION DANS DES PROCARYOTES.

Publication

EP 0253823 A1 19880127 (DE)

Application

EP 86906320 A 19861023

Priority

DE 3537708 A 19851023

Abstract (en)

[origin: WO8702673A2] To activate heterologous, procaryotic proteins genetically engineered and presenting disulphide bridges after their expression in procaryotic cells, cellular disintegration, solubilisation under denaturating and reducing conditions and activation under oxidating conditions in the presence of GSH/GSSG, either one works during the activation stage with a pH value between 9 and 12, a GSH concentration between 0.1 and 20 mmol/l, a GSSG concentration between 0.01 and 3 mmol/l and a non-denaturating concentration of the denaturating agent, or one separates the reducing and denaturating agents, transforms the thiol groups of the proteins in the mixed disulphides of protein and glutathione by adding GSSG under denaturating conditions and sets during the activation stage a pH value between 7 and 10.5, a GSH concentration between 0.5 and 5 mmol/l and a non-denaturating concentration of the denaturating agent. This process is particularly useful to obtain t-PA and interferon beta .

Abstract (fr)

Pour activer des protéines eucaryotes hétérologues produites par génie génétique et présentant des ponts bisulfures après leur expression dans des procaryotes, la désagrégation des cellules, leur solubilisation dans des conditions dénaturantes et réductrices et leur activation dans des conditions oxydantes en présence de GSH/GSSG, soit on utilise pendant l'étape d'activation un pH compris entre 9 et 12, une concentration de GSH comprise entre 0,1 et 20 mmol/l, une concentration de GSSG comprise entre 0,01 et 3 mmol/l et une concentration non-dénaturante de l'agent dénaturant, soit on sépare les agents réducteur et dénaturant, transforme les groupes thiols des protéines dans les bisulfures mixtes de protéine et de glutathion par adjonction de GSSG dans des conditions dénaturantes et on utilise pendant l'étape d'activation un pH compris entre 7 et 10,5, une concentration de GSH comprise entre 0,5 et 5 mmol/l et une concentration non-dénaturante de l'agent dénaturant. Ce procédé est particulièrement utile pour obtenir du t-PA et de l'interféron beta.

IPC 1-7

C07K 3/08; C07K 13/00; C12N 9/72; C12P 21/02

IPC 8 full level

C12N 15/12 (2006.01); **A61K 38/46** (2006.01); **A61K 38/48** (2006.01); **C07K 1/00** (2006.01); **C07K 1/08** (2006.01); **C07K 1/107** (2006.01); **C07K 1/113** (2006.01); **C07K 1/14** (2006.01); **C07K 1/22** (2006.01); **C07K 14/00** (2006.01); **C07K 14/195** (2006.01); **C07K 14/245** (2006.01); **C07K 14/435** (2006.01); **C07K 14/52** (2006.01); **C07K 14/555** (2006.01); **C07K 14/565** (2006.01); **C07K 14/745** (2006.01); **C07K 14/76** (2006.01); **C07K 19/00** (2006.01); **C12N 9/48** (2006.01); **C12N 9/52** (2006.01); **C12N 9/64** (2006.01); **C12N 9/72** (2006.01); **C12N 15/00** (2006.01); **C12N 15/09** (2006.01); **C12P 21/00** (2006.01); **C12P 21/02** (2006.01); C12R 1/19 (2006.01); C12R 1/40 (2006.01)

CPC (source: EP KR)

C07K 1/1133 (2013.01 - EP); **C07K 14/565** (2013.01 - EP); **C12N 9/6456** (2013.01 - KR); **C12N 9/6459** (2013.01 - EP); **C12Y 304/21069** (2013.01 - EP)

Citation (search report)

See references of WO 8702673A2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0219874 A2 19870429; **EP 0219874 A3 19880210**; **EP 0219874 B1 19931215**; AT E131489 T1 19951215; AT E98648 T1 19940115; AU 4132189 A 19900104; AU 590029 B2 19891026; AU 607083 B2 19910221; AU 6599386 A 19870519; CA 1329157 C 19940503; CZ 280727 B6 19960417; CZ 752686 A3 19960117; DD 260517 A5 19880928; DE 3537708 A1 19870423; DE 3537708 C2 19930708; DE 3650449 D1 19960125; DE 3689404 D1 19940127; DK 175091 B1 20040524; DK 175109 B1 20040607; DK 200001897 A 20001218; DK 320387 A 19870623; DK 320387 D0 19870623; EP 0253823 A1 19880127; EP 0393725 A1 19901024; EP 0393725 B1 19951213; ES 2020498 A4 19910816; ES 2020498 T3 19960401; ES 2061434 T3 19941216; FI 872753 A0 19870622; FI 872753 A 19870622; FI 933868 A0 19930903; FI 933868 A 19930903; FI 94050 B 19950331; FI 94050 C 19950710; FI 95578 B 19951115; FI 95578 C 19960226; GR 3018410 T3 19960331; GR 920300062 T1 19920831; HK 153496 A 19960816; HK 153596 A 19960816; HR P921075 A2 19950630; HR P921075 B1 19990228; HU 204855 B 19920228; HU T43643 A 19871130; IE 62634 B1 19950222; IE 862683 L 19870423; IL 80325 A0 19870130; IL 80325 A 19920621; JP H04218387 A 19920807; JP H0728745 B2 19950405; JP H0824594 B2 19960313; JP S62502895 A 19871119; KR 870700601 A 19871230; KR 900009139 B1 19901222; PT 83609 A 19861101; PT 83609 B 19881014; SI 8611796 A 19961031; SI 8611796 B 19980630; SK 278317 B6 19961002; SK 752686 A3 19961001; SU 1607689 A3 19901115; UA 6023 A1 19941229; WO 8702673 A2 19870507; WO 8702673 A3 19871022; YU 179686 A 19880630; YU 47185 B 19950131; ZA 868012 B 19870624

DOCDB simple family (application)

EP 86114731 A 19861023; AT 86114731 T 19861023; AT 90109721 T 19861023; AU 4132189 A 19890913; AU 6599386 A 19861023; CA 521121 A 19861022; CS 752686 A 19861017; DD 29546886 A 19861022; DE 3537708 A 19851023; DE 3650449 T 19861023; DE 3689404 T 19861023; DK 320387 A 19870623; DK PA200001897 A 20001218; EP 8600610 W 19861023; EP 86906320 A 19861023; EP 90109721 A 19861023; ES 86114731 T 19861023; ES 90109721 T 19861023; FI 872753 A 19870622; FI 933868 A 19930903; GR 920300062 T 19920831; GR 950403376 T 19951214; HK 153496 A 19960808; HK 153596 A 19960808; HR P921075 A 19921016; HU 528686 A 19861023; HU 529086 A 19861023; IE 268386 A 19861010; IL 8032586 A 19861015; JP 50588286 A 19861023;

JP 7976291 A 19910412; KR 870700536 A 19870623; PT 8360986 A 19861023; SI 8611796 A 19861021; SK 752686 A 19861017; SU 4202987 Q 19870622; UA 4202987 A 19861023; YU 179686 A 19861021; ZA 868012 A 19861022