

Title (en)

Washing or cleaning agent with special amylase

Title (de)

Wasch- oder Reinigungsmittel mit spezieller Amylase

Title (fr)

Produit de nettoyage ou de lavage avec une amylase spéciale

Publication

EP 2386632 A1 20111116 (DE)

Application

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Priority

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- DE 102006038448 A 20060816

Abstract (en)

Washing- or cleaning agent comprises an alpha -amylase-variant, which is obtained from a starting alpha -amylase that is homologated with an alpha -amylase AA560 by amino acid variations in the positions 9, 149, 182, 186, 202, 257, 295, 299, 323, 339, 345 and optionally further (as numbered according to the alpha -amylase AA560) or is obtained from the alpha -amylase AA560 by amino acid variations e.g. M9L/M202I. Washing- or cleaning agent comprises an alpha -amylase-variant, which is obtained from a starting alpha -amylase that is homologated with an alpha -amylase AA560 by amino acid variations in the positions 9, 149, 182, 186, 202, 257, 295, 299, 323, 339, 345 and optionally further (as numbered according to the alpha -amylase AA560) or is obtained from the alpha -amylase AA560 by the following amino acid variations: (1) M9L/M202I, (2) M9L/M202I/M323T, (3) M9L/M202I/M323T/M382Y, (4) M9L/M202I/Y295F/A339S, (5) M9L/M202I/Y295F, (6) M9L/M202I/A339S, (7) M9L/M202I/Y295F/A339S, (8) M9L/M202I/Y295F/A339S/E345R, (9) M9L/G149A/M202I/Y295F/A339S/E345R, (10) M9L/M202L, (11) M9L/M202L/M323T, (12) M9L/M202L/M323T/M382Y, (13) M9L/M202L/Y295F/A339S, (14) M9L/M202L/Y295F, (15) M9L/M202L/A339S, (16) M9L/M202L/Y295F/A339S, (17) M9L/M202L/Y295F/ A339S, E345R, (18) M9L/G149A/M202L/Y295F/A339S/E345R, (19) M9L/M202T, (20) M9L/M202T/M323T, (21) M9L/M202T/M323T/M382Y, (22) M9L/M202T/Y295F/A339S, (23) M9L/M202T/Y295F, (24) M9L/M202T/ A339S, (25) M9L/M202T/Y295F/A339S, (26) M9L/M202T/Y295F/A339S/E345R, (27) M9L/G149A/M202T/ Y295F/A339S/E345R, (28) M9L/G149A/M202I/V214T/Y295F/N299Y/M323T/A339S/E345R, (29) M9L/G149A/ M202L/V214I/Y295F/M323T/A339S/E345R/M382Y, (30) M9L/G149A/G182T/G186A/M202I/V214I/Y295F/N299Y/M323T/A339S, (31) M9L/G149A/G182T/G186A/M202L/T257I/Y295F/N299Y/M323T/A339S/E345R, (32) M9L/G149A/M202L/V214T/Y295F/N299Y/M323T/A339S/ E345R, (33) M9L/G149A/M202I/V214I/Y295F/M323T/A339S/E345R/M382Y, (34) M9L/G149A/G182T/G186A/ M202L/V214I/Y295F/N299Y/M323T/A339S, (35) M9L/G149A/G182T/G186A/M202I/T257I/Y295F/N299Y/ M323T/A339S/E345R, (36) M9L/G149A/M202I/V214T/Y295F/N299Y/M323T/A339S/E345R/N471E, (37) M9L/ G149A/M202L/V214I/Y295F/M323T/A339S/E345R/M382Y/ N471E, (38) M9L/G149A/G182T/G186A/M202I/ V214I/Y295F/N299Y/M323T/A339S/N471E, (39) M9L/G149A/G182T/G186A/M202L/T257I/Y295F/ N299Y/ M323T/A339S/E345R/N471E, (40) M202L/M105F/M208F, (41) G133E/M202L/Q361E, (42) G133E/M202L/ R444E, (43) M202L/Y295F, (44) M202L/A339S, (45) M202L/M323T, (46) M202L/M323T/M309L, (47) M202L/M323T/M430I, (48) M202L/V214T/R444Y, (49) M202L/N283D/Q361E, (50) M202L/M382Y/K383R, (51) M202L/K446R/N484Q, (52) M202I/Y295F, (53) M202I/A339S, (54) M202I/M105F/M208F, (55) G133E/M202I/Q361E, (56) G133E/M202I/R444E, (57) M202I/M323T, (58) M202I/M323T/M309L, (59) M202I/M323T/M430I, (60) M202I/V214T/R444Y, (61) M202I/N283D/Q361E, (62) M202I/M382Y/K383R, (63) M202I/K446R/N484Q, (64) M202V/M105F/M208F, (65) G133E/M202V/Q361E, (66) G133E/M202V/R444E, (67) M202V/M323T, (68) M202V/M323T/M309L, (69) M202V/M323T/M430I, (70) M202V/M323T/M9L, (71) M202V/V214T/R444Y, (72) M202V/N283D/Q361E, (73) M202V/M382Y/K383R, (74) M202V/K446R/ N484Q, (75) M202T/M105F/M208F, (76) G133E/M202T/Q361E, (77) G133E/M202T/R444E, (78) M202T/ Y295F, (79) M202T/A339S, (80) M202T/M323T, (81) M202T/M323T/M309L, (82) M202T/M323T/M430I, (83) M202T/M323T/M9L, (84) M202T/V214T/R444Y, (85) M202T/N283D/Q361E, (86) M202T/A339S, (87) M202T/Y295F, (88) M202T/N299F,Y, (89) M202T/M382Y/K383R or (90) M202T/K446R/N484Q. Independent claims are included for: (1) a combinational product comprising a packing material and the washing- or a cleaning agent, where: the washing- or cleaning agent comprises liquid substances A (builders (10-75 wt. %), enzyme(s) (0.1-10 wt. %), water (24.9- 89.9 wt. %)) and liquid substance B (builders (10-75 wt. %), water (25-90 wt. %)), which are separated from each other in the packing material; the liquid substance A shows a pH (at 20[deg]C) of 6-9, while the liquid substance B shows a pH of 9-14 and none of the substance A or B contains more than 2 wt.% of the bleaching agent and the alpha -amylase variant is present in the substance A; and (2) a washing- and cleaning method comprising the ingredients mentioned above.

Abstract (de)

Es werden Wasch- oder Reinigungsmittel mit einer speziellen \pm -Amylase beschrieben, die durch charakteristische Sequenzvariationen gekennzeichnet ist. Dabei handelt es sich um eine \pm -Amylase-Variante, die aus der \pm -Amylase AA560 über bestimmte Mehrfachsubstitutionen erhalten werden kann und folgende Aminosäurepositionsbelegung aufweist: 9L, 149A, 182T, 186A, 202L, 257I, 295F, 299Y, 323T, 339S und 345R und gegebenenfalls zusätzlich 118K, 183- (Deletion), 184- (Deletion), 195F, 320K und 458K (jeweils in der Zählung gemäß der \pm -Amylase AA560). Es kann sich auch um Mittel mit einer natürlichen \pm -Amylase mit diesen Positionsbelegungen handeln. Ferner werden auch entsprechende, durch diese Amylasen gekennzeichnete Wasch- oder Reinigungsverfahren und Verwendungsmöglichkeiten beschrieben.

IPC 8 full level

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