

Recent patents in protein engineering

Patent #	Subject	Assignee	Inventor(s)	Priority application date	Publication date
US 20020042097	A method for producing a modified polypeptide in a host-vector system in which a natural amino acid in the wild-type polypeptide is replaced with a selected amino acid analog by overexpressing an aminoacyl-tRNA synthetase corresponding to the natural amino acid. Modified polypeptides can be used to prepare functional drugs, antagonistic drugs, or inhibitory agents.	Kiick KL; Tirrell DA	Kiick KL, Tirrell DA	5/26/2000	4/11/2002
WO 200175158	A method for creating incrementally truncating nucleic acids involving the controlled digestion of nucleic acid; useful in protein engineering, protein folding, protein evaluation, and chemical synthesis of novel hybrid proteins.	Penn State Univ. Research Foundation (State College, PA)	Benkovic SJ, Lutz S, Nixon AE, Ostermeier M	11/15/2000	10/11/2001
US 6280993	A class I collagenase from <i>Clostridium histolyticum</i> having a fully defined sequence of 1,118 amino acids; useful in protein engineering techniques.	Yamato I	Hosaka T, Yamato I	8/24/1999	8/28/2001
US 6251144	Introduction of localized areas of variation in color and density and high contrast between blue and white fibers into an indigo-dyed denim surface, by substituting for or adding to pumice stones a redepositing cellulase and a protease.	Genencor International (Palo Alto, CA)	Clarkson KA, Jacobs L, Lad PJ, Mullins MM, Simpson CM, Weiss GL	11/30/1993	6/26/2001
WO 200136980	A method for identifying the interaction site, binding site, or active site in a macromolecule using informative combinatorial chemistry, informative peptide libraries, and multivariate quantitative structure-activity relationships; useful in drug design, protein engineering, and in the design of DNA or RNA molecules.	Melacure Therapeutics (Uppsala, Sweden); Pett CP	Andersson P, Lundstedt T, Muceniec R, Prusis P, Wikberg J	11/18/1999	5/25/2001
WO 200131989	A method of screening for a functional protein variant with reduced antibody binding, by analyzing cell samples transformed by a diversified library of variants of a relevant protein backbone for antibody binding and functionality of the variant.	Novozymes (Bagsvaerd, Denmark); Ernst S; Pedersen H; Roggen EL	Ernst S, Pedersen H, Roggen EL	12/9/1999	5/10/2001
WO 200116810	A method of optimizing specific building blocks which make up a target macromolecule, involving determining several conformers of each building block, which are quantified and ranked using scoring function and reference structure; useful for engineering and designing molecules which comprise building blocks that are individually amenable to systemic variation.	European Molecular Biology Laboratory (Heidelberg, Germany); Lacroix E; Serrano L	Lacroix E, Serrano L	8/31/1999	3/8/2001
RU 2162102	A recombinant plasmid encoding a fused protein consisting of the N-terminal fragment of tumor necrosis factor- α bound through peptide fragment Gly-Gln-Gly-Gly-Ser-Arg with the amino acid sequence of human proinsulin, and variants; can be used for the development of human insulin drugs.	Golovkov AL; Rusova Yu O; Zelinskii AK	–	9/8/1999	1/20/2001
WO 200104275	A thermostable phytase derived from <i>Bacillus amyloliquefaciens</i> DS-11 with a 2.1 Å crystal structure of a propeller shape comprising 6 eternal blades each consisting of 4 or 5 anti-parallel β strands. Located inside the 6 blades are 3 high-affinity calcium binding sites and 3 low-affinity calcium binding sites. The enzyme is useful in feed production for degrading phytate regardless of the position of its phosphate groups.	Daesung Microbiological Labs (Kyunggi-do, S. Korea); Korea Research Institute of Bioscience and Biotechnology (Taejeon, S. Korea)	Choi YW, Ha NC, Lee DK, Oh BC, Oh BH, Oh TK, Choi YU, Lee DG, Oh TG	7/9/1999	1/18/2001

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