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(54) Title: METHODS AND MEANS FOR PRODUCING PROTEINS WITH PREDETERMINED POST-TRANSLATIONAL MODIFICATIONS

(57) Abstract: The present invention provides methods for identifying, selecting and obtaining mammalian cells that are capable of producing proteinaceous molecules comprising predetermined post-translational modifications, wherein said post-translational modifications are brought about by the mammalian cell in which the proteinaceous molecule is expressed. Preferably, said predetermined post-translational modifications comprise glycosylation. The invention further provides methods for obtaining and producing proteinaceous molecules, using mammalian cells obtainable by a method of the present invention. Preferably said proteinaceous molecules comprise erythropoietin (EPO), since the effect of (recombinant) EPO depends heavily on the glycosylation pattern of the oligosaccharides present on the protein. Mammalian cells that have been obtained on the basis of their ability to produce proteins and/or post-translational modifications that are indicative for a predetermined post-translational modification that is desired are also provided. Preferably, said mammalian cells have neural characteristics and properties such that significant amounts of recombinant proteins can be produced that harbor 'neural- or brain-type' properties.



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