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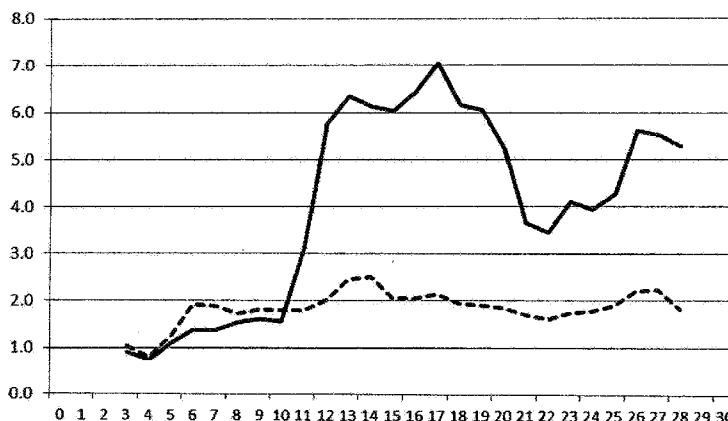
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(54) Title: ENHANCEMENT OF RECOMBINANT PROTEIN EXPRESSION WITH COPPER

Figure 1A: Recombinant Protein Titer



(57) Abstract: The present invention provides a novel use of copper (cupric ion) for improved cell expression of recombinant proteins, particularly coagulation proteins such as recombinant Factor VIII, B Domain Deleted recombinant Factor VIII, recombinant Factor IX and rFVII or rFVIIa. The use of such cell culture supplement results in higher productivity and robustness of the manufacturing process. This invention results in improvements in cell expression and product stability.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR2015/000025

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - C07K 14/745 (2015.01)
 CPC - C12N 2500/20 (2015.09)
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 IPC(8) - C07K 14/00, 14/435, 14/745, 14/755; C12P 21/00 (2015.01)
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 CPC - C07K 14/435, 14/745; C12N 2500/05, 2500/10, 2500/20 (2015.09) (keyword delimited)
 USPC - 435/283.1, 289.1, 325, 352, 358

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Orbit, Google Patents, PubMed, Google
 Search terms used: increase protein expression cupric copper recombinant coagulation factor protein perfusion cell retention culture system osmolality

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,171,825 B1 (CHAN et al) 09 January 2001 (09.01.2001) entire document	1-10
Y		11
Y	US 2003/0099618 A1 (COUTO et al) 29 May 2003 (29.05.2003) entire document	11
A	US 2014/0051832 A1 (DEMASI et al) 20 February 2014 (20.02.2014) entire document	1-11
A	US 2011/0039302 A1 (KAUFMAN et al) 17 February 2011 (17.02.2011) entire document	1-11
A	US 6,780,614 B2 (NÉGRIER et al) 24 August 2004 (24.08.2004) entire document	1-11

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