Title (en)

SOLUBLE POLYPEPTIDES WITH ACTIVITY OF THE NS3 SERINE PROTEASE OF HEPATITIS C VIRUS, AND PROCESS FOR THEIR PREPARATION AND ISOLATION

Title (de)

LÖSLICHE POLYPEPTIDE MIT DER AKTIVITÄT DER NS3 SERIN-PROTEASE DES HEPATITIS C VIRUS, UND VERFAHREN FÜR IHRE PRÄPARATION UND ISOLIERUNG.

Title (fr)

POLYPEPTIDES SOLUBLES A ACTIVITE DE SERINE PROTEASE NS3 DU VIRUS DE L'HEPATITE C ET LEUR PROCEDE DE PREPARATION ET D'ISOLEMENT

Publication

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Application

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Priority

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- IT RM960632 A 19960917

Abstract (en)

[origin: WO9812308A1] The present invention relates to serine protease NS3 of hepatitis C virus, and in particular to the observation that the NS3 serine protease domain, in its native conformation, binds a Zn<2+> ion and that bivalent metallic ions are necessary to the structural integrity of the protein and to the activity of the enzyme. The present invention further relates to recombinant polypeptides which comprise sequences of the NS3 protease and are characterised by a tail of at least three lysines at their C-terminal ends, to increase its solubility. A further subject of the present invention is a new process which allows the expression of said polypeptides, as metalloproteins, with the proteolytic activity of the HCV NS3 protease, in a soluble form and in a quantity sufficient to allow research to identify inhibitors and to determine the three-dimensional structure of the NS3 protease. Figure 4 shows the effects of the zinc ion on the production of the HCV NS3 protease as a soluble protein in E. Coli in a minimum culture medium.

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