

## Title (en)

ENGINEERING OF LEADER PEPTIDES FOR THE SECRETION OF RECOMBINANT PROTEINS IN BACTERIA

## Title (de)

ENGINEERING VON LEADER-PEPTIDEN FÜR DIE SEKRETION VON REKOMBINANTEN PROTEINEN IN BAKTERIEN

## Title (fr)

GENIE DE PEPTIDES LEADER POUR LA SECRETION DE PROTEINES RECOMBINEES DANS DES BACTERIES

## Publication

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## Application

**EP 02795597 A 20021105**

## Priority

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## Abstract (en)

[origin: WO03040335A2] The present invention provides methods of isolating of leader peptides capable of directing export of heterologous proteins from the bacterial cytoplasm. The methods rely on the screening of libraries of putative leader peptides or of leader peptide mutants for sequences that allow rapid export and thus can rescue a short-lived reporter protein from degradation in the cytoplasm. The mutant leader peptides identified herein are shown to confer significantly higher steady state levels of export not only for short-lived reporter protein but also for other stable, long-lived proteins. These leader peptides can be used to direct or enhance protein secretion. The present invention further discloses methods for the export of cytoplasmically folded protein via the Tat pathway. Proteins having disulfide bonds are first folded within the cytoplasm in suitable oxidizing mutant strains. Such cytoplasmically pre-folded proteins containing disulfide bonds are then exported via the Tat pathway.

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- See references of WO 03040335A2

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