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(54) Title: NUCLEIC ACID LIBRARIES, PEPTIDE LIBRARIES AND USES THEREOF

(57) Abstract: The present invention relates to nucleic acid libraries, peptide libraries and uses thereof. The invention relates to libraries of nucleic acids that encode a plurality of peptides that represent fragments of naturally occurring proteins. In particular, the invention relates to a library of nucleic acids, each nucleic acid comprising a coding region of defined nucleic acid sequence encoding for a peptide having a length of between 25 and 110 amino acids, and having an amino acid sequence being a region of a sequence selected from the amino acid sequence of a naturally occurring protein of one or more organisms; wherein the library comprises nucleic acids that encode for a plurality of at least 10,000 different such peptides, and wherein the amino acid sequence of each of at least 50 of such peptides is a sequence region of the amino acid sequence of a different protein of a plurality of different such naturally occurring proteins.