

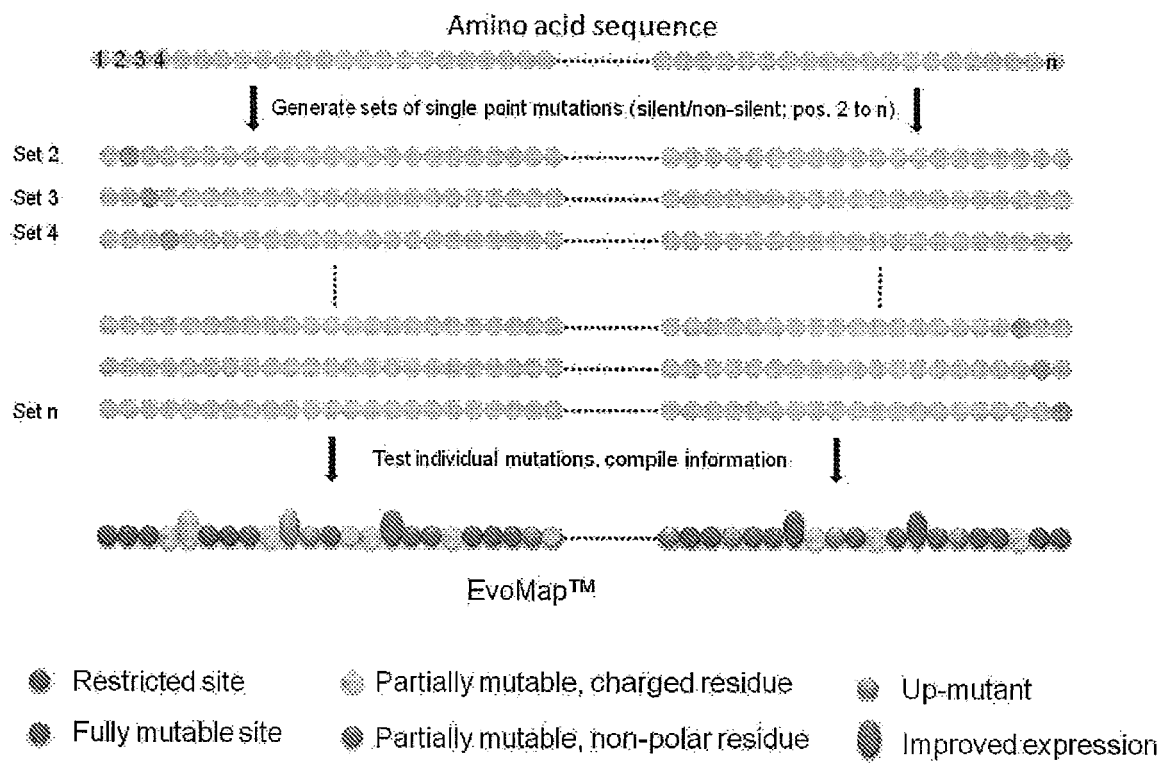


FIGURE 1

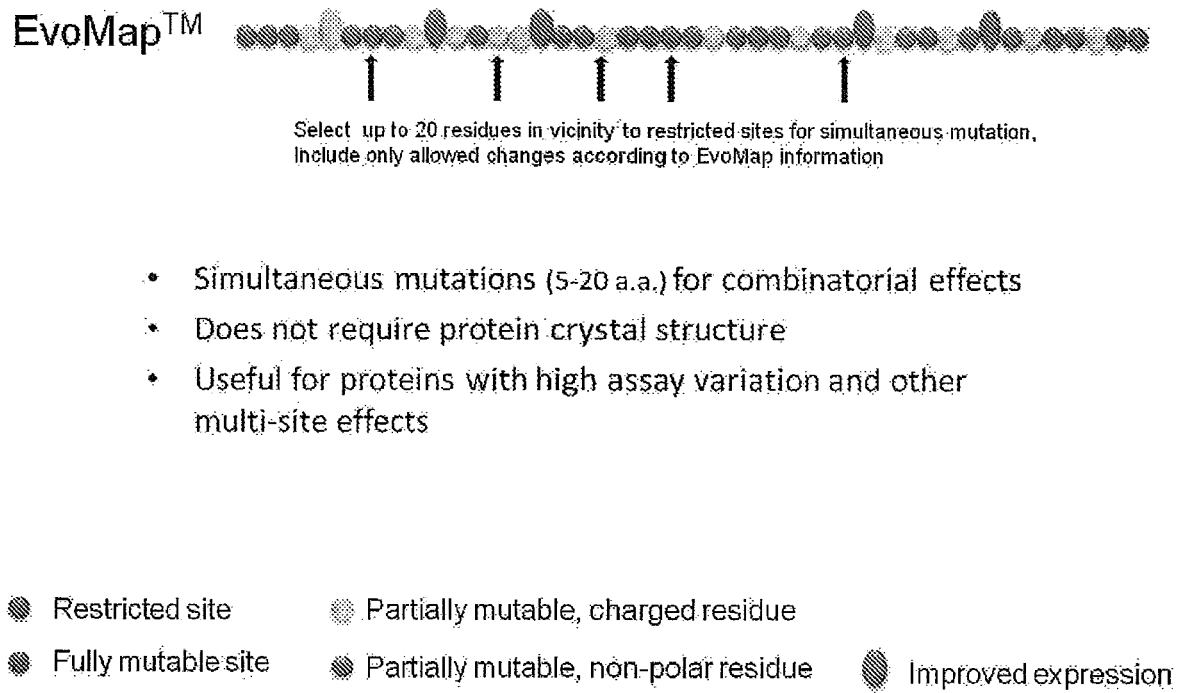
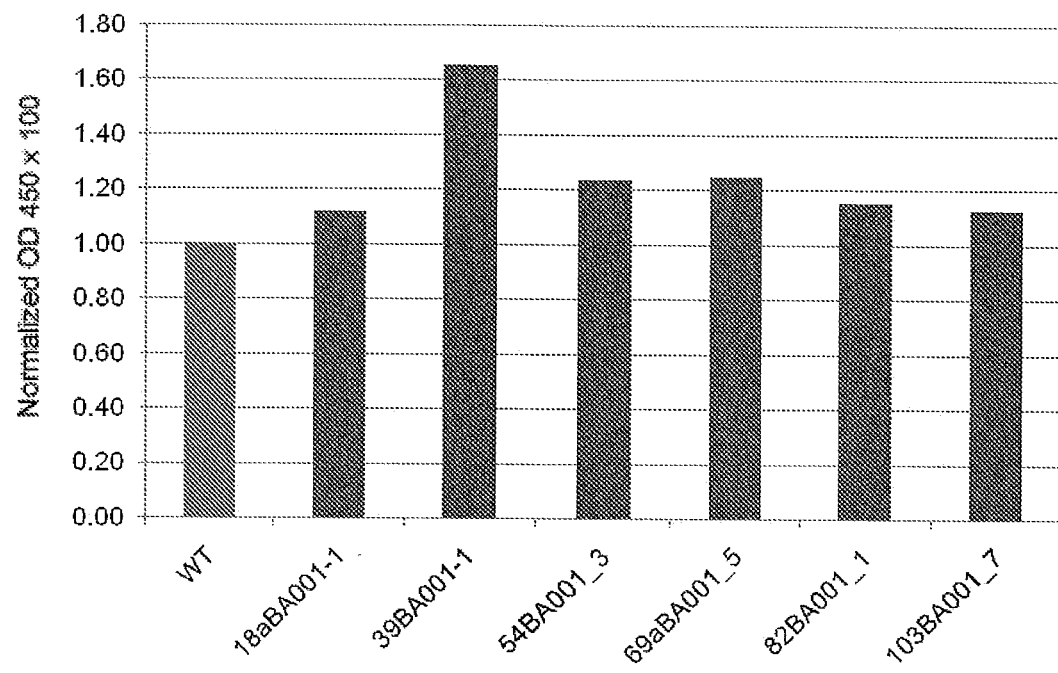


FIGURE 2

**FIGURE 3**

CPI™ - Comprehensive Positional Insertion Evolution

Inserts up to 20 individual amino acids at every single amino position throughout the protein

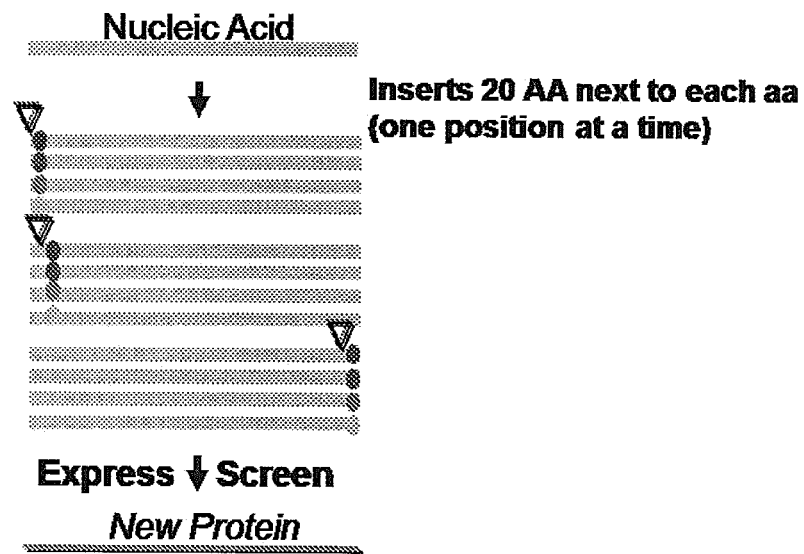


FIGURE 4

Comprehensive Positional Evolution (CPE™)

Lengthened Nucleic Acid from CPI

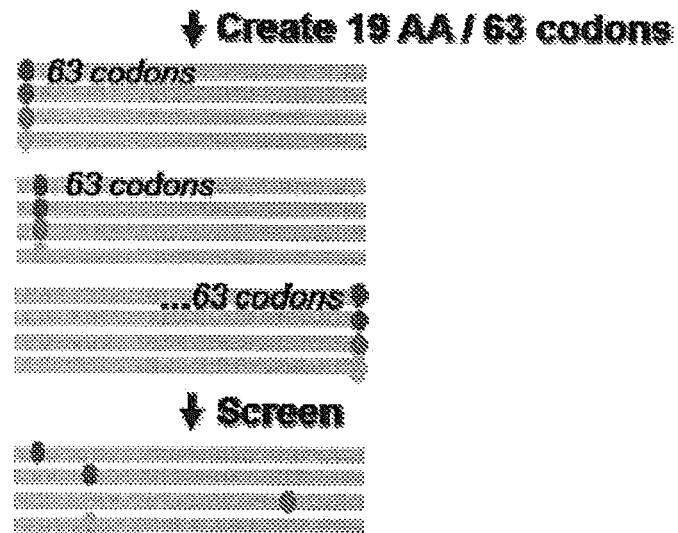


FIGURE 5

CPD™ - Comprehensive Positional Deletion Evolution

Deletes every amino acid through a protein one position at a time

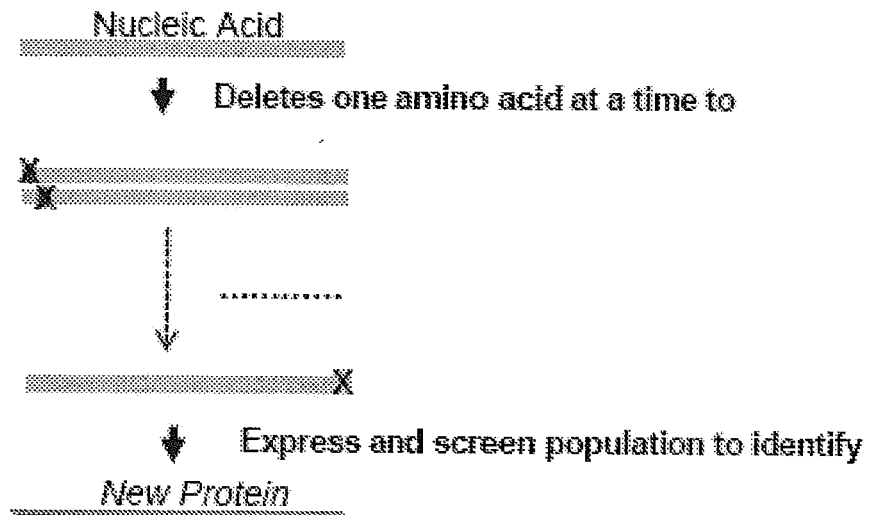
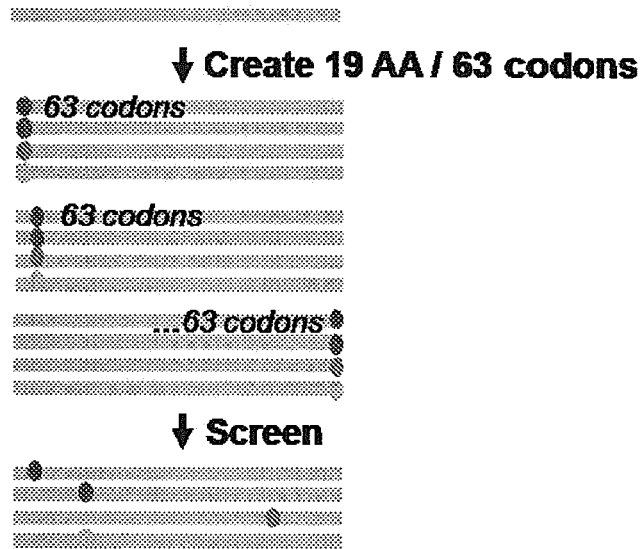


FIGURE 6

Comprehensive Positional Evolution (CPE™)

Shortened Nucleic Acid
from CPD



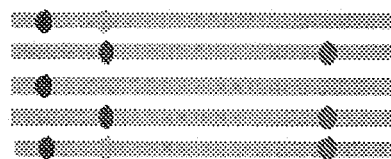
Optimized Gene/Protein

FIGURE 7

Combinatorial Protein Synthesis CPSTTM



↓ **Combine**

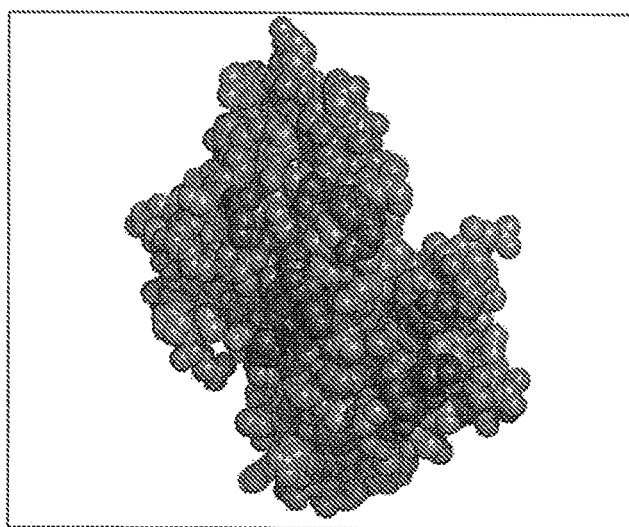


↓ **Screen**



Optimized Gene/Protein

FIGURE 8



**Comprehensive Positional Evolution Map
(Antibody LC/HC variable domains)**

-  Up-mutants
-  Non-mutable sites
-  Partially mutable sites
-  Fully mutable sites

FIGURE 9

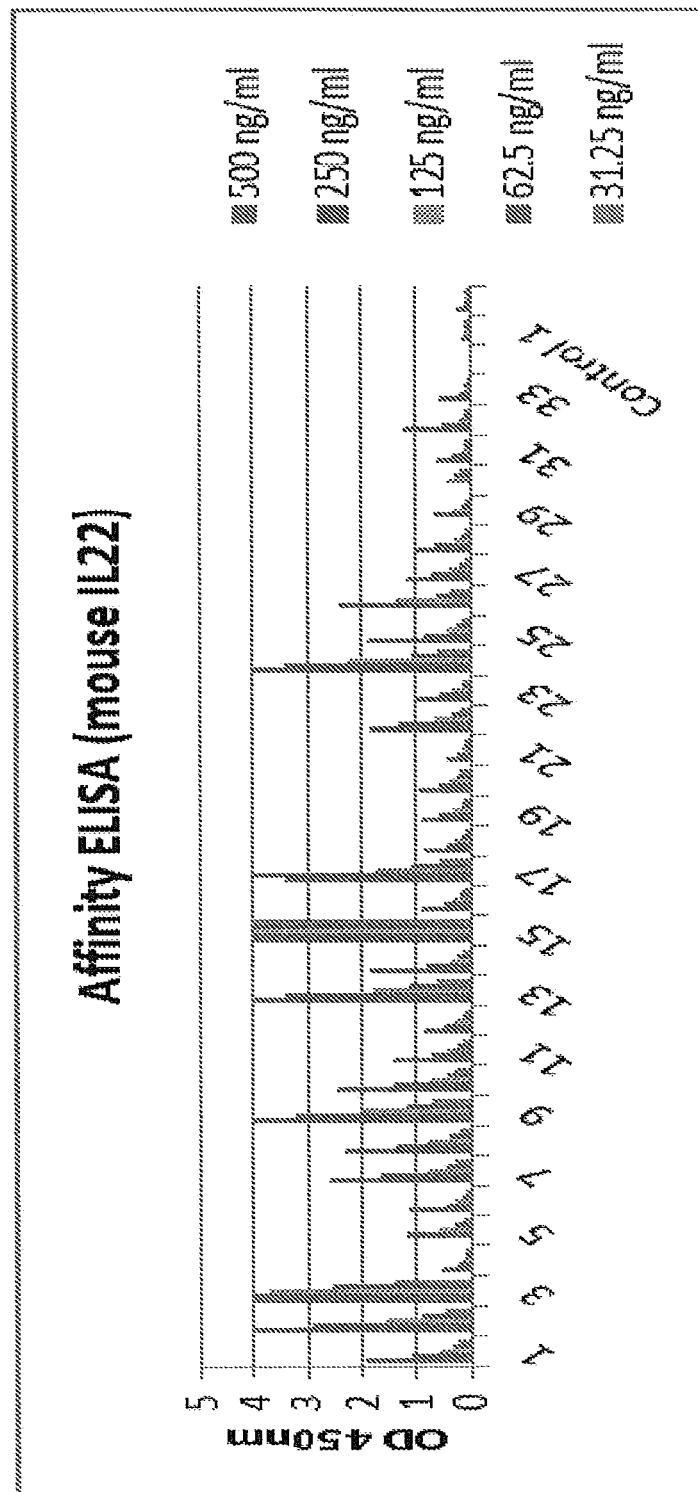


Figure 10

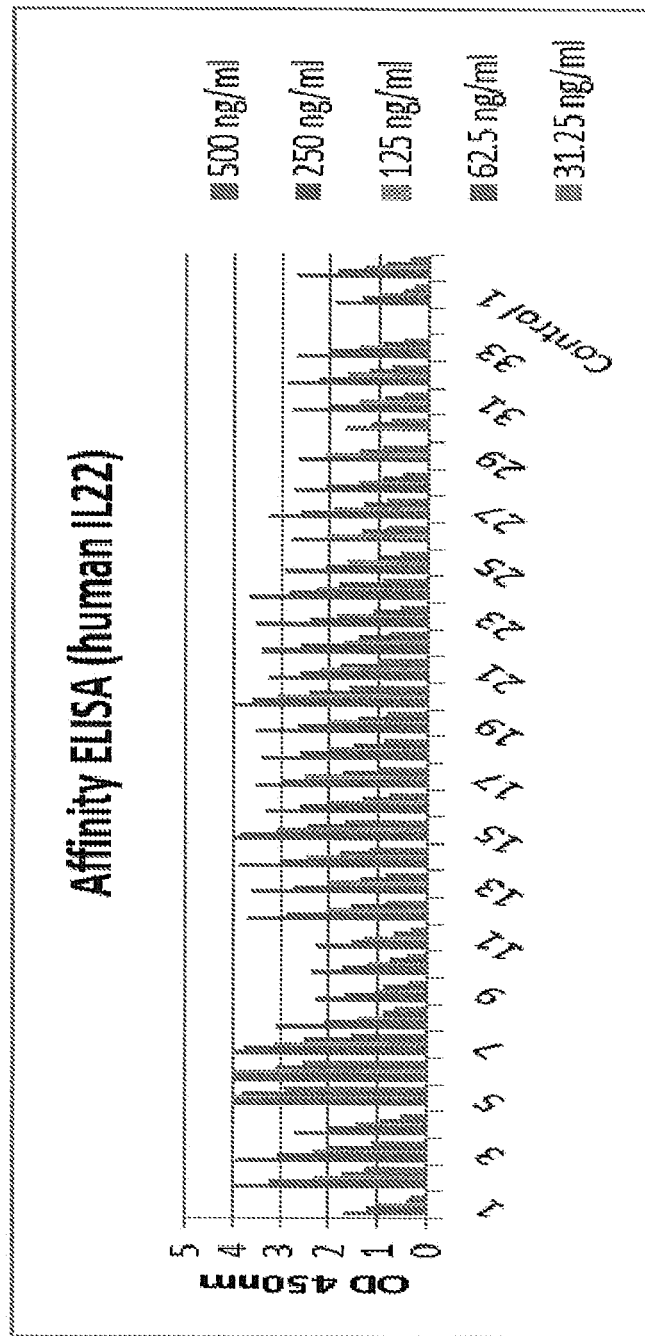


Figure 11

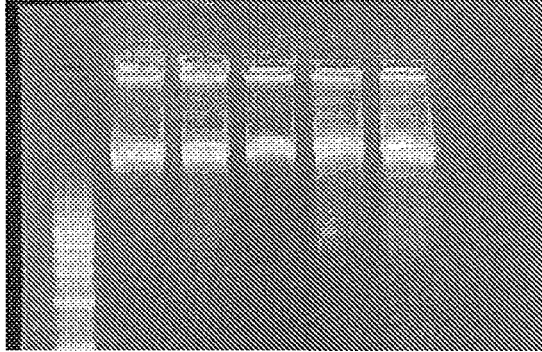


Figure 12