

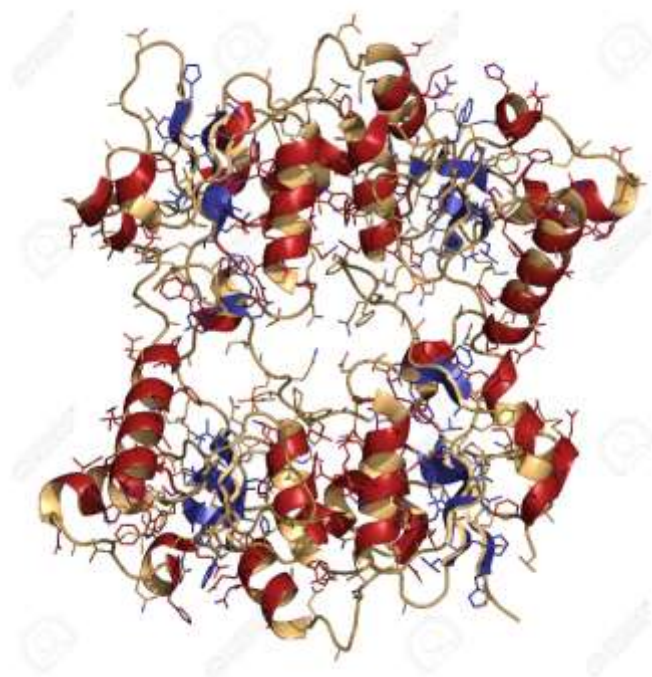


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Technology Transfer

PEPTIDES AND APTAMERS THEREOF AS SPECIFIC MODULATORS OF MUTANT P53 FUNCTION

Innovation in human tumors prevention



Category:

Life Sciences

Patent Ownership:

UNIVERSITA' DI TRIESTE

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EP2268658; US8822420

Patent Status:

Granted in United States, France, Germany, Switzerland, Great Britain and Italy

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Available

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Brief description

Mutations in the p53 tumor suppressor gene are frequently found in human tumors and mutant p53 proteins actively collaborate with tumor progression. Interfering with mutant p53 function may represent a valid strategy to block tumor growth and development of aggressive phenotypes. As a consequence of the characteristic of peptide aptamers to efficiently and selectively bind a target protein, they are able to interfere with its function and in its ability to interact with other partners. In the present application isolated peptides and aptamers thereof able to interact with structural and conformational p53 mutants within the region of the wild-type p53 DNA binding core domain comprised from amino acids 74 to amino acids 298 using the yeast two-hybrid method are disclosed.

Innovative aspects and main advantages

The molecules related to the invention specifically recognize, bind and inhibit the tumor promoting

factor mutant p53. Providing a new approach for treatment of tumors by specifically acting on mutant p53 give the advantage to develop new and very selective therapeutic strategies against tumors.

Applications

The peptides and aptamers identified can be useful as inhibitors of mutant p53-associated pro-oncogenic functions for anticancer therapy or as diagnostic tools for mut-p53 or wild-type p53 or as template for designing new peptido-mimetic drugs able to specifically target tumor cells.

Potential market

The target market refers to preventive medicine.

Development status

Laboratory tests.