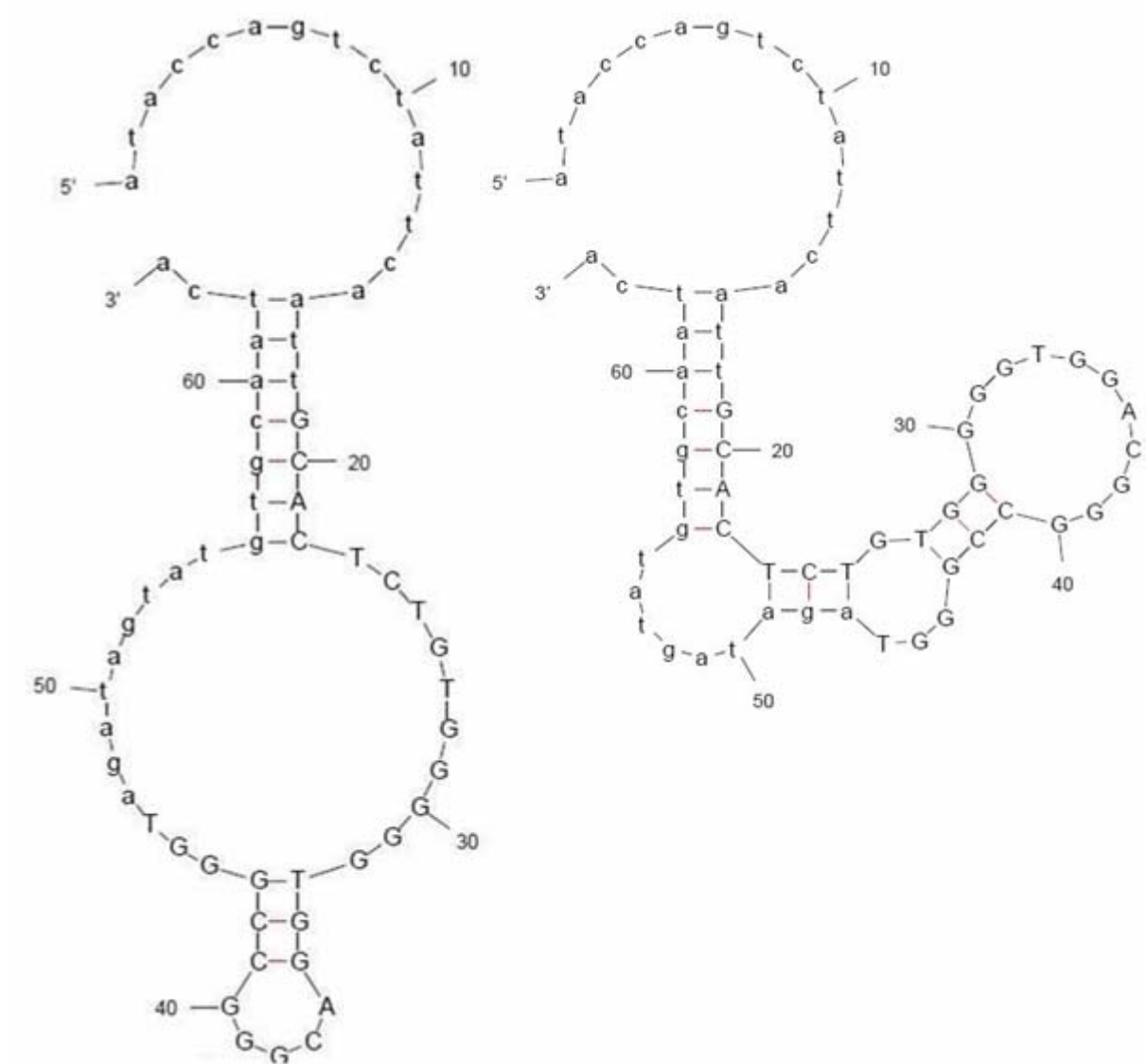


Supplementary data 1. Predicted secondary structure of Vap7

M-fold was used as prediction program. And data sets of folding condition noted below.

Folding Vap7 at 25 °C. [Na⁺] = 100 mM, [Mg⁺⁺] = 0.0 M



Supplemental data 2. Result of structural prediction by QGRS mapper

Underlined G characters are predicted to form G-quadruplex structure. G-score is meaning the tendency of G-quadruplex structure constructing.

Data View

Search Parameters: QGRS Max Length: 30 | Min G-Group Size: 2 | Loop size: from 0 to 36 | Loop search string:

QGRS sequences found (overlaps included)

Position	Length	QGRS	G-Score
29	17	<u>GGGGTGGACGGCCGGG</u>	21
28	12	<u>GGGGTGGACGG</u>	20
28	18	<u>GGGGGTGGACGGCCGGG</u>	20
29	16	<u>GGGGTGGACGGCCGG</u>	20
29	16	<u>GGGGTGGACGGCCGG</u>	20
30	15	<u>GGGTGGACGGCCGG</u>	20
30	15	<u>GGGTGGACGGCCGG</u>	20
30	16	<u>GGGTGGACGGCCGGG</u>	20
28	12	<u>GGGGGTGGACGG</u>	19
28	13	<u>GGGGGTGGACGG</u>	19
28	17	<u>GGGGGTGGACGGCCGG</u>	19
28	17	<u>GGGGGTGGACGGCCGG</u>	19
28	18	<u>GGGGGTGGACGGCCGGG</u>	19
29	11	<u>GGGGTGGACGG</u>	19
29	17	<u>GGGGTGGACGGCCGG</u>	19
30	16	<u>GGGTGGACGGCCGG</u>	19
31	14	<u>GGTGGACGGCCGG</u>	19
31	14	<u>GGTGGACGGCCGG</u>	19
31	15	<u>GGTGGACGGCCGGG</u>	19
28	13	<u>GGGGGTGGACGG</u>	18

29	12	GGGGTGGACGGG	18
31	15	GGTGGACGGGCCGGG	18
28	17	GGGGTGGACGGGCCGG	17
28	18	GGGGTGGACGGGCCGGG	17
28	17	GGGGTGGACGGGCCGG	16
28	18	GGGGTGGACGGGCCGGG	16
29	16	GGGGTGGACGGGCCGG	16
29	17	GGGGTGGACGGGCCGG	16
28	17	GGGGTGGACGGGCCGG	15
28	17	GGGGTGGACGGGCCGG	15
28	18	GGGGTGGACGGGCCGGG	15
29	16	GGGGTGGACGGGCCGG	15
29	17	GGGGTGGACGGGCCGG	15
28	17	GGGGTGGACGGGCCGG	14
28	17	GGGGTGGACGGGCCGG	14
28	18	GGGGTGGACGGGCCGGG	14
28	18	GGGGTGGACGGGCCGGG	14
29	16	GGGGTGGACGGGCCGG	14
28	18	GGGGTGGACGGGCCGGG	13
29	17	GGGGTGGACGGGCCGG	13

Supplemental data 3. Result of binding confirmation between V7t1 and VEGF

20 pmol of VEGF₁₂₁, 5 pmol of VEGF₁₆₅ and 20 pmol of PQQGDH were immobilized on nitrocellulose membrane. Then 500 nM of V7t1 were incubated with these membranes. Finally we detected chemiluminescence whether V7t1 binds to proteins or not. Black spots represent binding between V7t1 and each protein.

