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(54) Title: APTAMERS AND RIBOSWITCHES OF LUTEOLIN AND OTHER NARINGENIN DERIVED FLAVONOIDS FOR IN VITRO AND IN VIVO SENSING

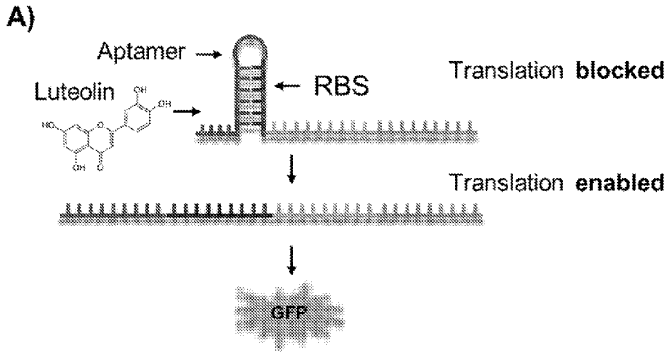


Figure 2

(57) Abstract: Disclosed is an aptamer capable of binding to luteolin and other naringenin derived flavonoids, wherein the aptamer is: an RNA aptamer having a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 and SEQ ID NO: 2; or a DNA aptamer having a nucleotide sequence selected from the group consisting of SEQ ID NO: 3 and SEQ ID NO: 4; wherein for SEQ ID NO: 1 and 2, N is one nucleotide selected from the group consisting of A, G, C and U, and wherein for SEQ ID NO: 3 and 4, N is one nucleotide selected from the group consisting of A, G, C and T. Also disclosed is a riboswitch and a DNA expression cassette comprising the aptamer, a composition thereof, and a microbe containing the riboswitch or DNA expression cassette. Further disclosed is a method of detecting luteolin and other naringenin derived flavonoids produced in a microbe using the aptamer or riboswitch as disclosed herein.

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