

Title (en)

VIRUS RESISTANT PLANTS CONTAINING INDUCIBLE CYTOTOXIC mRNAs.

Title (de)

INDUZIERBARE CYTOTOXISCHE mRNAs ENTHALTENE VIRUS RESISTENTE PFLANZEN.

Title (fr)

VEGETAUX RESISTANT AUX VIRUS ET CONTENANT DES ARNm CYTOTOXIQUES INDUCTIBLES.

Publication

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Application

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Priority

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Abstract (en)

[origin: WO9323532A1] The invention features a responsive RNA molecule which encodes, in one or more protein-coding regions, a polypeptide, and which includes a regulatory domain, a substrate region, and a ribosome recognition sequence. This responsive RNA molecule has an inhibitor region in the regulatory domain, which regulatory domain is complementary to both a substrate region of the responsive RNA molecule and to an anti-inhibitor region of a signal nucleic acid such that, in the absence of the signal nucleic acid, the inhibitor and substrate regions form a base-paired domain the formation of which reduces the level of translation of one of the protein-coding regions in the responsive RNA molecule compared to the level of translation of that one protein-coding region observed in the presence of the signal nucleic acid. The anti-inhibitor region of the signal nucleic acid is complementary in sequence to the inhibitor region of the responsive RNA molecule such that when the anti-inhibitor region is base-paired with the inhibitor region, translation of one protein-coding region of the responsive RNA is increased compared to the level of translation of that protein-coding region observed in the absence of the signal nucleic acid. The signal nucleic acid comprises part of the nucleic acid of a plant cell infecting organism.

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