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TTA System

National Cancer Institute

Source

National Cancer Institute. *TTA System*. NCI Thesaurus. Code C19092.

Tetracycline controlled transactivator (tTA). The original description of a tetracycline-regulated gene expression system is based on two plasmids, one of which constitutively expresses a tetracycline-controlled transactivator protein (tTA), a fusion protein between the tetracycline repressor of *E. coli* and the transcriptional activation domain of the VP16 protein of herpes simplex virus. The second plasmid contains the gene to be regulated by tTA under the control of an inducible promoter which consists of seven copies of the tetracycline resistance operator (tetO). Since this original description, many modifications have been described. (from Gallia GL, Khalili K. *Oncogene* 1998. 16:1879-84)