Cell models to evaluate activity of p53:MDM2 inhibitors

Twist gain-of-function and loss-of-function cell models

Product description

Twist GAIN-of-function and LOSS-of-function cell models were developed and used for preclinical p53:MDM2 inhibitors evaluation, preliminary demonstrating that the expression of Twist hampers their efficacy.

These findings support patient stratification on the basis of twist expression for treatment of a large fraction of **sarcomas** but also of a fraction of **carcinomas.** (Piccinin et al., Cancer Cell, 22, 404-415, Sept 11 2012).

Product application

Evaluate activity of p53:MDM2 inhibitors in preclinical phase.

These cell models can be used also as research tools to explore p53 inactivation mechanisms in TP53 wild type tumors, and to study MDM2i resistance mechanisms.

Developmental stage

3 different cell lines were consistently characterized.
2 more cell lines are producing promising results.
6 p53:MDM2 inhibitors have been tested including
nutlin3a - AMG 232 - RG7112 - SAR405838
More than **100** cell vitality tests have been performed

Advantages

No further need for p53 wild-type cell models engineering to modulate Twist expression

We are looking for a partner interested in the commercialization of the products as **research tool** and/or for **drug screening**.

Unit of Functional Oncogenetics and Oncogenomics - Director: Roberta Maestro

Expertise

- Deep knowledge on p53 inactivation mechanisms in TP53 wild type tumors
- Solid knowhow on the generation of gain/loss-of-function cell models

Future Projects

- Identification of biomarkers for MDM2i sensitivity/resistance
- Identification of molecules capable of restoring p53 function in p53 inhibited tumors

CRO AVIANO TTO TECHNOLOGY TRANSFER OFFICE

Lucia Coral PhD
Knowledge Transfer Manager
Mail lucia.coral@cro.it
Phone 0434659749

Ermes Mestroni
Technology Transfer Manager
Mail emestroni@cro.it
Phone 0434659723