

ISSCTA database on Cell Transformation Assays results

Definition of the fields in file *ISSCTA_vvv_nnn_dddddddd.sdf*

- ID_CTA:** Identification Code of the chemical;
- Name_CTA:** Chemical name (as reported in References);
- CAS:** Registry Number of the Chemical Abstract Service (as reported in References);
- Structure:** The displayed structure refers to the CAS;
- SMILES:** simplified chemical notation that represents a chemical structure as a linear textual string. It is aimed at computer applications (for more information, see http://www.daylight.com/smiles/f_smiles.html) ;

Cell Transformation Assays (CTA)

- SHEpH6.7:** CTA assay in Syrian hamster embryo cells, pH= 6.7;
- SHEpH7:** CTA assay in Syrian hamster embryo cells, pH \geq 7;
- BALB/c 3T3:** CTA assay in cell line derived from embryos of BALB/c mice;
- C3H/10/T1/2:** CTA assay in cell line derived from embryos of C3H mice;
- Bhas42:** CTA assay in cell line Bhas 42 (established from the BALB/c 3T3 cells through the transfection with a plasmid pBR322 containing Ha-MuSV-DNA, clone H1 (v-Ha-ras));

Outcome codes in CTA assays:

- 3** = positive
1 = negative
ND = No Data / Divergent results / Inconclusive results
4 = Positive in tumor promotion

The additional field “**Tumor promotion**” refers to assays in which tumor promotion has been tested in addition to the standard assay reported:

- 4** = Positive in tumor promotion.

Reference:

OECD 2007: OECD. Detailed review paper on cell transformation assays for detection of chemical carcinogens. 2007. Paris, OECD. OECD Series on Testing and Assessment, Number 31.

Sakai et al. 2010: Sakai,A., Sasaki,K., Muramatsu,D., Arai,S., Endou,N., Kuroda,S., Hayashi,K., Lim,Y., Yamazaki,S., Umeda,M., and Tanaka,N. (2010): A Bhas 42 cell transformation assay on 98 chemicals: The characteristics and performance for the prediction of chemical carcinogenicity. *Mutat.Res.*, 702:100-122.