

Guidelines/Criteria	
Reference:	Tully DB, Cox VT, Mumtaz MM, Davis VL, Chapin RE. 2000. Six high-priority organochlorine pesticides, either singly or in combination, are nonestrogenic in transfected HeLa cells. <i>Reprod Toxicol</i> 14:95–102.
In vitro Study Type Route of Administration Species & age of animals	Oestrogen receptor and oestrogen-responsive chloramphenicol acetyltransferase (CAT) reporter plasmid cotransfected in HELA cells (mouse ER expression vector)
Study Duration	18 h exposure
Type of Mixture Binary >2 components Similar acting or dissimilar What Mode of Action was investigated?	yes (different binary mixtures of 6 organochlorine pesticides were tested) similar action assumed Oestrogenicity
Parameters/End points Measured Target organs/Critical effects Pharmacological changes or adverse effects <i>In vitro</i>	ng CAT (chloramphenicol acetyltransferase)/mg protein
Individual Components Characterisation of individual compounds Name, exact chemical name, CAS no. Were dose responses established for individual components? Were no effect levels established? Were doses below the NO(A)ELs investigated?	yes 17 β estradiol (50-28-2) p,p'-DDT (50-29-3) p,p'-DDD (72-54-8) p,p'-DDE (72-55-9) Aldrin (309-00-2) Dieldrin (60-57-1) Endrin (72-20-8) yes (0.0001 - 10 μ M tested) yes yes
Mixtures Investigated Number of dose levels How does the mixture make-up compare to individual components? (e.g. low dose) equivalents used?) No. of technical replicates per exposure condition (<i>in vitro</i>) No. of animals per dose group (<i>in vivo</i>)	5 equimolar binary mixtures were used at concentrations 0.0001 - 10 μ M) DDT + DDD, DDT + DDE, DDD + DDE Aldrin - Dieldrin, Aldrin + Endrin, Dieldrin + Endrin three independent experiments with each triplicate measurements
Observations/Findings	No effect for the single compounds and neither for each binary mixtures.
Overall opinion (e.g. sufficient numbers of groups investigated, group sizes adequate, observations reproducible, low dose levels used investigated)	Positive control 17 β -estradiol was detected in this assay at concentrations of \geq 0.01 nM; range of concentrations tested of the compounds is adequate. Reliability 2