

Supplementary Materials

Migration studies and endocrine disrupting activities: chemical safety of cosmetic plastic packaging

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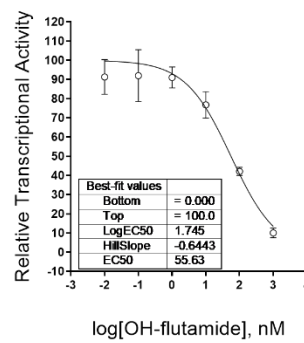
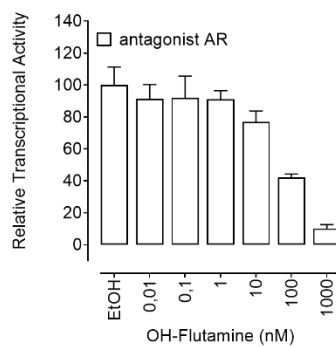
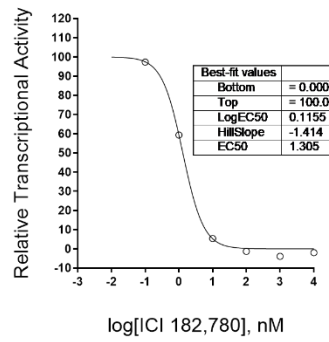
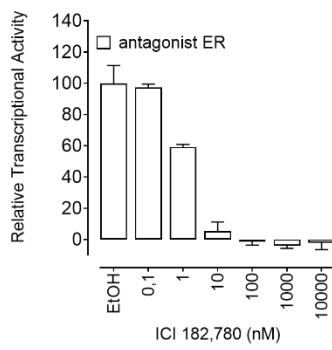
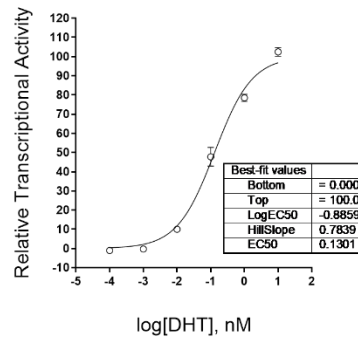
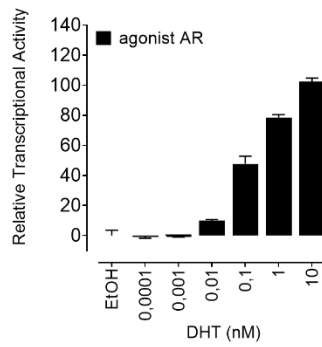
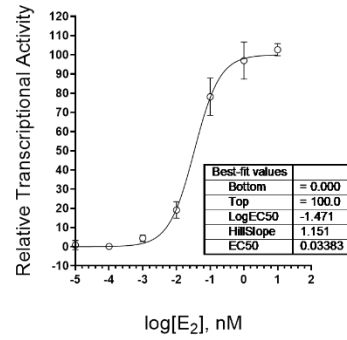
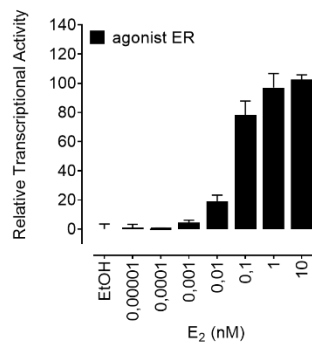
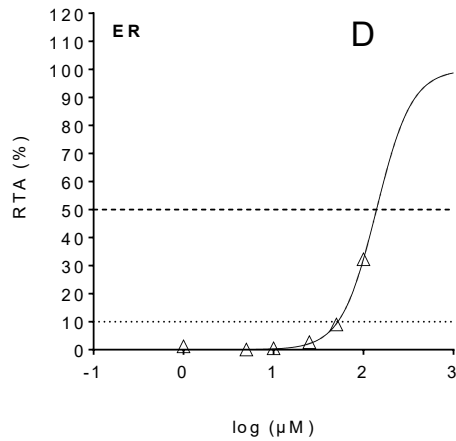
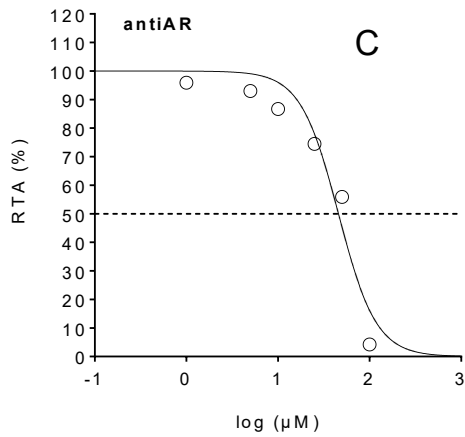
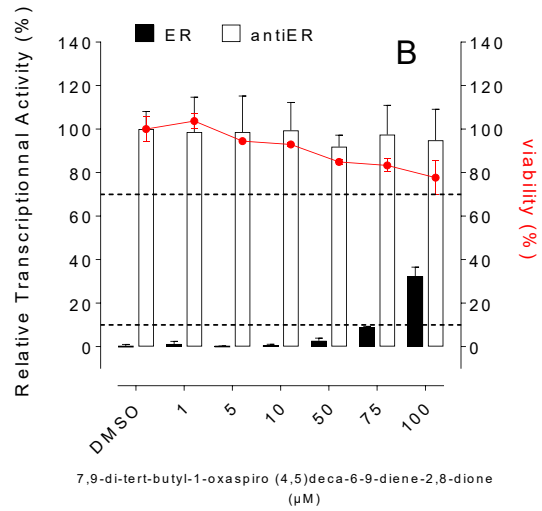
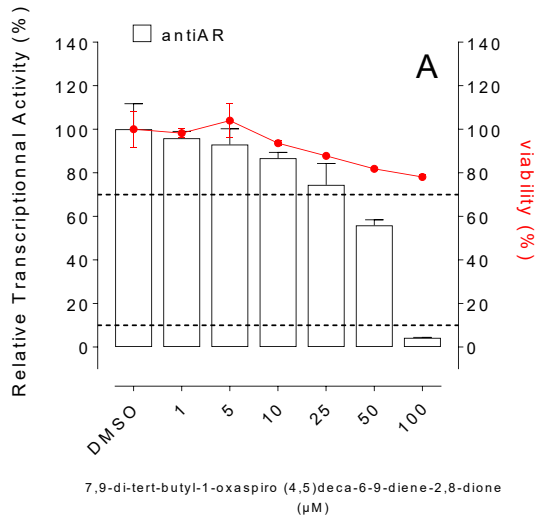


Figure S1. ER and AR agonism and antagonism with positive controls in HeLa-9903 (ER) and MDA-kb2 (AR) transcriptional activation assays. ER, estrogen receptor; AR, androgen receptor. In the antagonist mode, E₂ (0.025nM) or DHT (0.25nM) were added during the experimental setup. In the right column, Hill slope representation to calculate EC₅₀/IC₅₀ value.



	oxaspiro
Sigmoidal dose-response (variable slope)	
Best-fit values	
Bottom	= 0
Top	= 100
LogEC50	1.66
HillSlope	-2.1
EC50	45.67

	oxaspiro
Sigmoidal dose-response (variable slope)	
Best-fit values	
Bottom	= 0
Top	= 100
LogEC50	2.146
HillSlope	2.215
EC50	139.8

Figure S2. AR antagonism and ER agonism and antagonism with 7,9-di-tert-butyl-1-oxaspiro (4,5)deca-6-9-diene-2,6-dione in MDA-kb2 (AR) and HeLa-9903 (ER) transcriptional activation assays. ER, estrogen receptor; AR, androgen receptor (A and B). In the antagonist mode, E2 (0.025nM) or DHT (0.25nM) were added during the experimental setup. Hill slope representation to calculate IC_{50}/EC_{50} variable (C and D).

Table S3. Reference Chemicals: performance criteria. Values derived from the concentration response curve (log EC50, log EC10, logIC30, logIC50, Hill slope) for the reference chemicals in the ER agonist assay (A), in the ER antagonist assay (B), in the AR agonist assay (C) and in the AR antagonist assay (D).

A-Performance Criteria for Reference Chemicals in ER agonist assay

<u>Reference Chemicals</u> <u>Parameter</u>	<u>Acceptable</u> <u>Range (OECD</u> <u>455)</u>	<u>Value</u>
<u>17β-estradiol (E2)</u>		
<u>log E50 (M)</u>	<u>-11.4 to -10.1</u>	<u>-10.5</u>
<u>log E10 (M)</u>	<u><-11</u>	<u>-11.3</u>
<u>Hill Slope</u>	<u>0.7 to 1.5</u>	<u>1.15</u>
<u>17α-estradiol</u>		
<u>log EC50 (M)</u>	<u>-9.6 to -8.1</u>	<u>-8.4</u>
<u>log EC10 (M)</u>	<u>-10.7 to -9.3</u>	<u>-9.2</u>
<u>Hill Slope</u>	<u>0.9 to 2</u>	<u>1.14</u>
<u>17α-methyltestosterone</u>		
<u>log EC50 (M)</u>	<u>-6.0 to -5.1</u>	<u>-4.3</u>
<u>log EC10 (M)</u>	<u>-8.0 to -6.2</u>	<u>-6.4</u>
<u>Hill Slope</u>	<u>:</u>	<u>:</u>
<u>Corticosterone</u>		
<u>log EC50 (M)</u>	<u>:</u>	<u>:</u>
<u>log EC10 (M)</u>	<u>:</u>	<u>:</u>
<u>Hill Slope</u>	<u>:</u>	<u>:</u>

B-Performance Criteria for Reference Chemical in ER antagonist assay

<u>Reference Chemical</u> <u>Parameter</u>	<u>Acceptable</u> <u>Range (OECD</u> <u>455)</u>	<u>Value</u>
<u>ICI 182,780</u>		
<u>log IC50 (M)</u>	<u>-9.8 to -8.2</u>	<u>-8.9</u>
<u>log IC30 (M)</u>	<u>-10.0 to -9.0</u>	<u>-9.1</u>
<u>Flutamide</u>		
<u>log IC50 (M)</u>	<u>:</u>	<u>:</u>
<u>log IC30 (M)</u>	<u>:</u>	<u>:</u>

C-Performance Criteria for Reference Chemical in AR agonist assay

<u>Reference Chemical</u> <u>Parameter</u>	<u>Acceptable</u> <u>Range (OECD</u> <u>458)</u>	<u>Value</u>
<u>5α-Dehydrotestosterone (DHT)</u>		
<u>log EC50 (M)</u>	<u>-11.03 to -9.00</u>	<u>-9.88</u>
<u>log PC10 (M)</u>	<u>-12.08 to -9.87</u>	<u>-10.48</u>
<u>Hill Slope</u>	<u>0.57 to 4.3</u>	<u>1.79</u>

D-Performance Criteria for Reference Chemical in AR antagonist assay

<u>Reference Chemical</u> <u>Parameter</u>	<u>Acceptable</u> <u>Range (OECD</u> <u>458)</u>	<u>Value</u>
<u>Hydroxyflutamide (OH-FLU)</u>		
<u>log IC50 (M)</u>	<u>-7.8 to -6.17</u>	<u>-7.25</u>
<u>log IC30 (M)</u>	<u>-8.37 to -6.41</u>	<u>-7.83</u>