

A COMPREHENSIVE OFFER TO COVER ALL YOUR NEEDS

Watchfrog Laboratory is about than just testing your samples, we commit to support you on all topics related to endocrine disruptors. From training teams to elaborate action plans, selecting products to be tested or interpreting results. Watchfrog Laboratory has established a network of partners (toxicologists, regulatory experts, partner laboratories...).



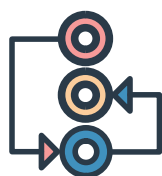
DATA EVALUATION & ANALYSIS

- Preliminary assessment
- Analysis of available data
- Literature search
- Analysis of the quality of existing data
- Data gap assessment
- Implementation of a screening/testing strategy



TESTING YOUR SAMPLES

- Level 1 OECD tests (scientific literature, *in silico*...)
- Level 2 OECD (*in vitro*)
- Level 3, 4 & 5 OECD tests (*in vivo*)
- Interpretation of results (hazard assessment)
- Mechanistic studies



SUPPORT TO YOUR STRATEGY

- Analysis of alerts
- Opportunities and risks, prioritization
- Product strategy reviews
- Support to substitution
- Adapting the scientific vocabulary to your intern and public communication
- Scientific article and position paper development
- Providing tools for your risk assessments
- Beeing at your side in case of alert



TRAINING YOUR TEAMS

- Legal and regulatory context
- General training or tailor made
- Scientific and technological surveys

LABORATOIRE
WATCHFROG

WATCHFROG SA - 1, rue Pierre Fontaine - 91000 EVRY - France - **+33 (0)1 69 36 11 15**
info@watchfrog.fr - **watchfrog.fr** - SIRET : 484 872 551 00011

EPICEA.COM - 03/2022

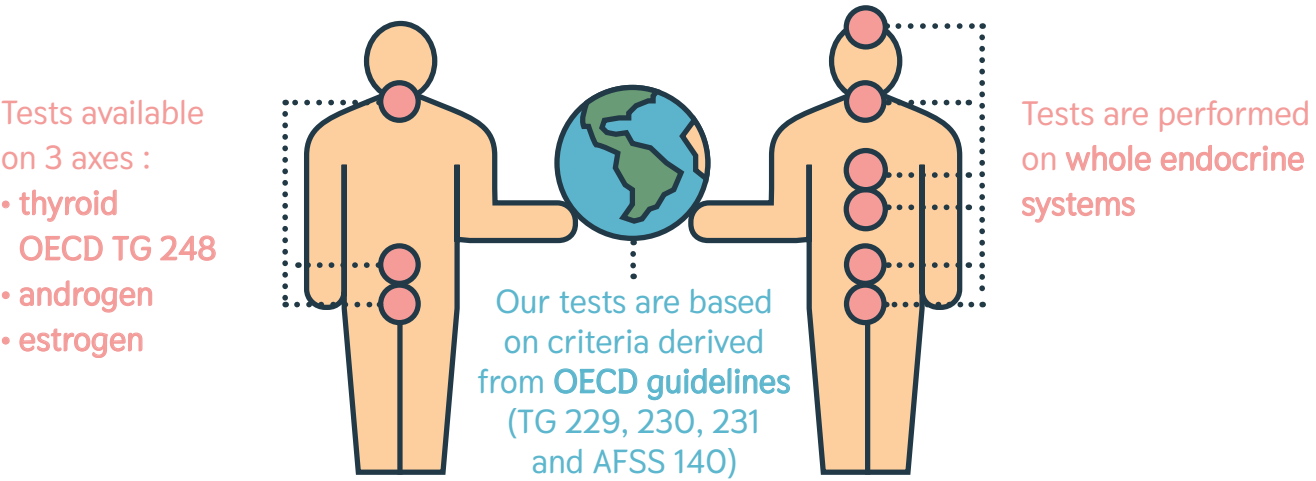


COSMETICS & WELLNESS

*Endocrine disruptors:
testing & assessment
to secure your products*

LABORATOIRE
WATCHFROG

Since 2005, Watchfrog Laboratory has helped cosmetics manufacturers & brands in securing their ingredients and products. This assessment includes generating data, analyzing the weight of evidence and taking into account the industrial context to provide the most appropriate solutions.



ENDOCRINE DISRUPTORS IN COSMETICS

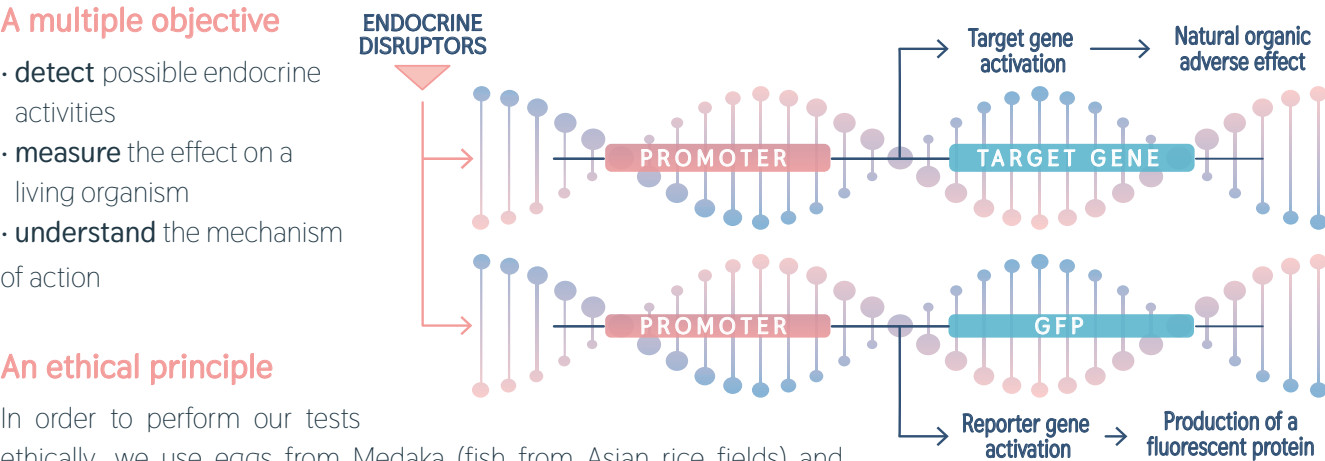
Since 2013, **European cosmetic regulation** (n° 1223/2009) forbids the use of laboratory animals for testing. However, according to the European definition of endocrine disruptors, the weight of evidence related to endocrine disrupting criteria **requires whole organism testing** (OECD levels 3, 4 and 5), and cannot be achieved with cell based assays alone (level 2).

To address this challenge, Laboratoire Watchfrog **exclusively offers *in vitro* alternative methods** to replace the use of laboratory animals.

Our technology offers the advantage of being adapted to all of your samples



THE WATCHFROG METHODOLOGY



An ethical principle

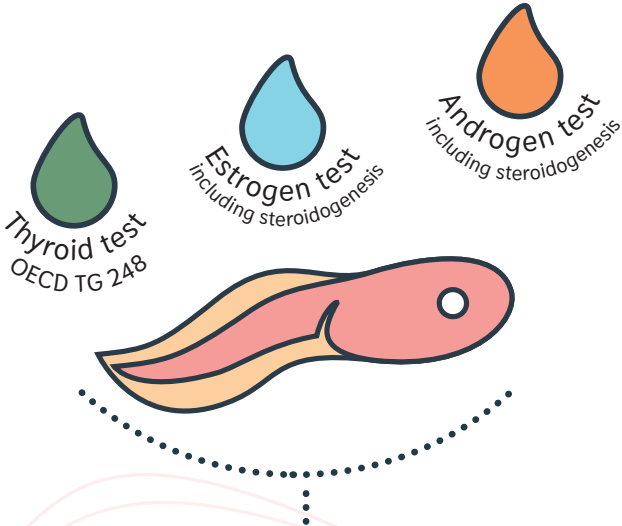
In order to perform our tests ethically, we use eggs from Medaka (fish from Asian rice fields) and Xenopus (amphibians). Their hormonal mechanisms at embryonic life stages are identical to those of adult animals and are conserved through the evolution of species up to humans.

Once hatched, we place them in contact with the samples to be tested for 24 to 72 hours.

The eggs carry a genetic construct composed of the promoter of the naturally occurring **target gene**, coupled to the **fluorescence reporter gene GFP**. This makes it possible to measure the **level of endocrine activity** induced by the test sample by measuring the level of fluorescence which is proportional to the effect.

The target physiological response of endocrine disruptors is then revealed by **an increase or decrease in the level of fluorescence**.

In vitro tests on whole organisms



LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
EXISTING DATA and none test information	IN VITRO TESTS on mechanism	IN VIVO TESTS on whole organisms	IN VIVO TESTS on whole organisms	IN VIVO TESTS on whole organisms

- ◆ Screening and mechanistic characterisation
- ◆ Based on criteria derived from OECD guidelines (229, 230, 231 et AFSS 140)
- ◆ Included in the OECD evaluation strategy*

*Classification according to OECD Guide 150 and ECHA/EFSA guidance document