

# Dioxins & PCBs by DR CALUX®



**BDS**

**BioDetection  
Systems**

- “The” cost-efficient bioanalytical method for PCDD/Fs and dl-PCBs
- The DR CALUX is since two decades evaluated in many quality systems (ISO, GMP+, Q&S, KAT) and countries (>30)
- Standardized testing of a wide variety of matrices (e.g. feed/food, environmental, blood/human milk)
- One stop platform also for non-dioxin-like PCBs
- High sensitivity: equivalent to GC/HRMS
- Standardized training and handling of all kinds of steps from extraction, clean-up, cell culture handling and luminometer measurement
- Please ask also for our other CALUX tests for obesogens (PPAR), hormones (ER, AR, TR, PR)), veterinary drugs (GR), genotoxicity (p53) or oxidative stress (Nrf2)



Quantitative  
Robotics  
ISO 17025



Bioassay  
Faster & Cheaper

## DR CALUX® Assay

Dioxins/PCBs are regulated in several international guideline (e.g. food EC/1259/2011) and by several bioanalytical analysis guidelines (e.g. food EC/252/2012; EPA 4435 and JIS 463)

## BDS CALUX Principle:

DRE's are integrated in the rat H4IIE cell line. If an PCDD/F/dl-PCB is binding on the AhR receptor, luciferase is equivalent activated to the standards (e.g, TCDD, PCB-126) and can be measured by a luminometer.

## Why use BDS' DR CALUX® bioassay?



## Who uses BDS' DR CALUX® bioassay?

- Collaboration with many well-known food/feed companies (e.g. oils, fats, eggs, milk)
- Feed/food company with GMP+, QS, KAT or other quality requirements
- Monitoring, remediation and consulting of polluted areas
- Many international R&D projects & partners

## Which International R&D projects have validated and used DR CALUX?

- "New Generis" 2006-2008: Mother-children cohorts from 6 countries
- "Horizontal: 2004-2006 as well as Training/PT of 15 EU-NRLs labs, 2004
- "Difference: 2002-2005: Dioxin/PCB screening tests for food/feed
- "EcoLink" 2011-2013: Eco-toxicological relevant biomarker
- Many evaluation studies for emission gas, incinerator residues, dust, PCB oils, soils/sediment, biowaste, biomass, recycling processes and waste cases