

**SAM-PRA-045**

## **SAMPLE PREPARATION**

### **The special case of $\beta$ -agonists**

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#### **• Context**

$\beta$ -agonist drugs are forbidden growth promoters within EU according to the 96/23 directive, in which they are classified as belonging to group A5. Analytical strategies have to be set up in order to identify their potential misuse. In this context, a successful multi-residue analysis in biological matrices at trace level relies on efficient and appropriate sample preparation protocols.

#### **• General objective(s)**

To demonstrate a sample preparation protocol for the analysis of  $\beta$ -agonist compounds in urine samples. Extraction/purification will be performed on the basis of mixed phase (reversed and anion exchange) Solid Phase Extraction (SPE) cartridges.

#### **• Main items**

SPE / mixed phase /  $\beta$ -agonists / Urine

#### **• Pedagogical objectives**

- ✓ To perform  $\beta$ -agonist drugs extraction/ purification from urine sample
- ✓ To identify critical points in the extraction process

#### **• Pedagogical tools**

- ✓ Demonstration on biological samples
- ✓ SPE cartridges utilisation
- ✓ Demonstration performed in the lab

#### **• Duration**

- ✓ 1 hour

#### **• Pre-requisite**

- ✓ Theoretical lectures on sample preparation (SAM-THE-010, SAM-THE-020, SAM-THE-030)