

Technology Offer

CSIC/AF/023

## Biosensor for the detection of analytes in biological samples



**Portable diagnostic device for the detection of analytes in biological samples. The biosensor allows a label-free quantitative detection. Simple use, no qualified personnel needed.**

### Intellectual Property

Priority patent filed

### Stage of development

Device validated in the laboratory

### Intended Collaboration

Licensing and/or co-development

### Contact

Alfonso del Rey  
 Vice-presidency for  
 Innovation and Transfer  
[adelrey@icmab.es](mailto:adelrey@icmab.es)  
[comercializacion@csic.es](mailto:comercializacion@csic.es)



### Market need

In the last years, different *in situ* diagnostic systems that allow early and simple detection of disease marker analytes have been developed. In this way, medical treatments can be implemented early, facilitating the recover of patients and reducing the costs for the health system.

The devices for qualitative detection are user-friendly, but don't quantify the analyte and need to label the analyte to detect it, which increase the complexity of the device.

Quantitative devices need complex procedures that must be done by qualified personnel.



### Proposed solution

A new electronic biosensor that allows quantitative detection of label-free analytes in a simple procedure.

The new device combines the use of an absorbent material that receives and transports the sample to be analysed, and sensor media that produces variable electric current according to the quantity of analyte present in the sample.

### Competitive advantages

- Portable electronic biosensor.
- Analyte quantification in real time.
- Results read with a potentiostat that can be connected to a mobile phone.