






# Testing for Biomarkers of Human Activity

-  ELISA Test Kits
-  Manual ELISA System Package
-  Automated ELISA System Package

# Testing for Biomarkers of Human Activity



Most of the household water in developed nations is treated before it is allowed to enter the environment. However, accidental release can occur resulting in untreated waste water entering streams, lakes, rivers, and other water bodies. Identifying waste water treatment plant (WWTP) and septic system failures can be difficult, especially when these failures occur in remote or unmanned locations.

Indicator bacteria has traditionally been used to assess water quality but microbial tests require ~24 hours to complete and do not discriminate between human and animal sources. Alternatively, ELISA (Enzyme-Linked Immunosorbent Assay) can be used to analyze surface waters for chemical markers of human activity, resulting in shorter analysis times.

## Caffeine

Possibly the most widely consumed drug in the world due to extensive use in beverages, food and pharmaceuticals, caffeine is an effective marker of pollution from sewage effluents.

## Carbamazepine

One of the most frequently reported pharmaceuticals in surface water, carbamazepine is used for the treatment of epilepsy, ADHD, bipolar disorder, and schizophrenia, entering the water cycle through human excretions.

## Triclosan

Widely used in various soaps, cosmetics and industrial products as an antimicrobial agent, triclosan is a common wastewater contaminant.

## Benefits of ELISA

- Quantitative determination of analyte concentrations
- Results in ~2-4 hours
- Require only basic lab (pipetting) skills
- Equipment costs at least 10-fold less than traditional instrumental methods
- Cost per sample as low as \$15-20 (depending on sample batch size)



## ABRAXIS® Biomarker ELISA plate kits

Analyte	Part #	Verified matrices*	Minimum order requirement
Caffeine	515575	Water, Urine, Saliva	None
Carbamazepine	515585	Water	5 kits
Triclosan & triclosan methyl	530114	Water, Soil	5 kits

\* Protocols for other sample matrices may be available. Contact [support.abraxis@us.goldstandarddiagnostics.com](mailto:support.abraxis@us.goldstandarddiagnostics.com)

## Our Turn-key Manual ELISA System Package

**Part #: 475010S**

Are you looking to implement an on-site ELISA testing program? We've made it simple. Our manual ELISA system package includes everything you need\* to get you up and running quickly and successfully.

- 4303 plate reader, pre-programmed for ABRAXIS® ELISA kits
- On-site training for up to 3 operators by our Technical Support staff
- 3 ABRAXIS® ELISA test kits (used for training)
- Pipettes & tips (repeater pipette as well as single and multi-channel micro-pipettes)
- Training consumables (plate covers, reagent basins, empty plate frame etc.)
- Shipping within the continental US & Canada



**Have you considered automation?**

We also offer fully automated ELISA system packages\*\*

**Check out our brochure  
"8 Reasons to Automate"**

\* System packages are offered in the US & Canada only through GSD Horsham. Computer and printer must be sourced separately

\*\* Contact us for information on ELISA kits verified for use with our automated systems.

## About Gold Standard Diagnostics

For over 25 years, Gold Standard Diagnostics Horsham (formerly Eurofins Abraxis) has developed, manufactured, and marketed rapid environmental, food, and life sciences test systems to meet the testing needs of research and industry. Traditional analytical laboratory testing can often be costly and time consuming. Our commercially available test kits allow for accurate, on-site testing, providing near real time answers for critical decision-making, often at a lower cost than traditional methods.

**We offer test kits for the following water quality/environmental testing applications:**

- Algal Toxins
- Industrial Chemicals
- Markers for Bioactivity
- Pesticides & Herbicides
- Vitellogenin (Vtg)



### Contact Us

Questions about our products and services? Contact us and a representative will contact you within the next business day. If you are outside the US and Canada, we will forward your request to our local distributor partner if applicable.

If you already have our test kits and have questions about their use, feel free to reach out using our Technical Support team direct line at +1 267-982-5017 or via email at [support.abraxis@us.goldstandarddiagnostics.com](mailto:support.abraxis@us.goldstandarddiagnostics.com).



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