



HOW TO READ YOUR  
**TOXICOLOGY**  
**RESULT REPORTS**

---



# FREQUENTLY ASKED QUESTIONS

To assist your agency in reading the Toxicology Result Report, below are some frequently asked questions and illustrated scenarios.

## 1. WHAT IS THE DIFFERENCE BETWEEN A SCREEN TEST AND A CONFIRMATION TEST?

Screening is a presumptive technique used to rapidly identify the presence of a drug class in a specimen. Confirmation involves the definitive identification of one or more specific drugs or metabolites.

## 2. WHY DOES THE LAB START WITH A SCREEN TEST?

Performing an initial screen test allows for the ability to quickly narrow down the potential class(es) of drug(s) that may be present in a specimen without spending excessive time or resources.

## 3. WHAT IS A PRESUMPTIVE POSITIVE AND HOW IS IT DIFFERENT FROM A POSITIVE RESULT?

Unconfirmed positive enzyme immunoassay (EIA) screen test results will show as “Presumptive Positive.” Presumptive positive indicates only a preliminary analytical result. A more specific alternate chemical method such as liquid chromatography-tandem mass spectrometry (LC-MS/MS) or gas chromatography-mass spectrometry (GC-MS) must be used in order to obtain a confirmed positive analytical result. Positive LC-MS/MS or GC-MS results will show as “Positive.”

## 4. WHY WOULD SOMETHING SCREEN POSITIVE AND CONFIRM NEGATIVE?

A positive screen result is consistent with the detection of a compound that is structurally similar to the target drug or drug class. A negative confirmation result indicates that the target drug or metabolite was not detected in the specimen above the cutoff level. Since a positive screen test is a preliminary result, it is possible to have a specimen screen positive and subsequently confirm negative.

## WHAT DOES A SCREEN POSITIVE, CONFIRM NEGATIVE RESULT LOOK LIKE ON MY TOXICOLOGY RESULT REPORT?

In the illustration below, the specimen screened positive for Cocaine by EIA. The screen result indicates “Presumptive Positive.” The secondary confirmation method by LC-MS/MS is negative. The confirmation result indicates “Negative.”

### DRUG TESTS

DRUG OR DRUG CLASS	SCREEN			CONFIRMATION		
	METHOD	CUTOFF	RESULT	METHOD	CUTOFF	RESULT
Alcohol (Ethanol)	EA	0.04g/dL	Negative			
Cocaine						
Cocaine (Benzoylcegonine)	EIA	300 ng/mL	Presumptive Positive			
Benzoylcegonine (Cocaine Metabolite)				LC-MS/MS	100 ng/mL	Negative

This line indicates the screen result for Cocaine is Presumptive Positive by EIA. →

This line indicates a Negative confirmation result for Cocaine by LC-MS/MS. ←

## IN THE SCENARIO ABOVE, WHAT WOULD THE FINAL RESULT SUMMARY INDICATE?

For the scenario above, the Summary section of the Final Report would indicate “Negative.”

SUMMARY
Negative

## WHAT DOES A SCREEN POSITIVE, CONFIRM POSITIVE LOOK LIKE ON MY TOXICOLOGY RESULT REPORT?

In the illustration below, the specimen screened positive for Cocaine by EIA. The screen result indicates “Presumptive Positive.” The secondary confirmation method by LC-MS/MS is positive. The confirmation result indicates “Positive” for the following drug: Benzoyllecgonine (Cocaine Metabolite). The corresponding quantitative level of detection is provided in the Summary.

DRUG TEST						
DRUG OR DRUG CLASS	SCREEN			CONFIRMATION		
	METHOD	CUTOFF	RESULT	METHOD	CUTOFF	RESULT
Alcohol (Ethanol)	EA	0.04 g/dL	Negative			
Amphetamines	EIA	1000 ng/mL	Negative			
Barbiturates	EIA	200 ng/mL	Negative			
Benzodiazepines	EIA	200 ng/mL	Negative			
Cocaine						
Cocaine (Benzoyllecgonine)	EIA	300 ng/mL	Presumptive Positive			
Benzoyllecgonine (Cocaine Metabolite)				LC-MS/MS	100 ng/mL	Positive

This line indicates the screen result for Cocaine is Presumptive Positive by EIA.

This line indicates the confirmation result for Cocaine Metabolite is Positive by LC-MS/MS.

## IN THE SCENARIO ABOVE, WHAT WOULD THE FINAL RESULT SUMMARY INDICATE?

For the scenario above, the Summary section of the Final Report will indicate “Positive” and include details of the drugs detected with the corresponding quantitative level of detection.

SUMMARY
• Positive for the following drugs: Benzoyllecgonine (Cocaine Metabolite) (250 ng/mL)

## WHAT DOES A SCREEN NEGATIVE LOOK LIKE ON MY TOXICOLOGY RESULT REPORT?

If the specimen screens negative for a particular drug or drug class it will not be processed by a secondary confirmatory method. The Result column for the screen will indicate “Negative.”

FOR MORE INFORMATION, CONTACT US AT REDWOODTOXICOLOGY.COM OR CALL US AT 800-255-2159.

