MAYO CLINIC LABORATORIES

# Test Definition: DSSX

Drug Screen, Prescription/Over the Counter, Chain of Custody, Serum

## Overview

### Useful For

Detection and identification of prescription or over-the-counter drugs frequently found in drug overdose or used with a suicidal intent

Qualitatively identifying drugs present in the specimen; quantification of identified drugs, when available, may be performed upon client request

This test is **not intended for** therapeutic drug monitoring or compliance testing.

This test is **not intended for use** in employment-related testing.

This test is **not useful for** drugs of abuse or illicit drug testing, including benzodiazepines, opioids, barbiturates, cocaine, and amphetamine type stimulants.

Chain of custody is required whenever the results of testing could be used in a court of law. Its purpose is to protect the rights of the individual contributing the specimen by demonstrating that it was always under the control of personnel involved with testing the specimen; this control implies that the opportunity for specimen tampering would be limited.

### Additional Tests

| Test Id | Reporting Name | Available Separately | Always Performed |
|---|---|---|---|
| COCH | Chain of Custody Processing | No | Yes |

### Special Instructions

- Emergency/Overdose

### Method Name

Gas Chromatography Mass Spectrometry (GC-MS)

### NY State Available

Yes

## Specimen

### Specimen Type

Serum Red

## Specimen Required

**Supplies: Chain-of-Custody Kit (T282)**
**Container/Tube:** Chain-of-Custody Kit containing the specimen containers, seals, and documentation required.
**Preferred:** 10-mL Red top (serum gel/SST are **not acceptable)**
**Acceptable:** 5-mL Red top
**Submission Container/Tube:** Plastic vial
**Specimen Volume:** 2.75 mL
**Collection Instructions:**
1. Centrifuge and aliquot serum into plastic vial within 2 hours of collection.
2. Cap, seal, and submit with the associated documentation to satisfy the legal requirements for chain-of-custody testing.
**Additional Information:** See Emergency/Overdose.

## Forms

1. Chain of Custody Request is included in the Chain-of-Custody Kit (T282).
2. If not ordering electronically, complete, print, and send a Therapeutics Test Request (T831) with the specimen.

## Specimen Minimum Volume

1.1 mL

## Reject Due To

| | |
|---|---|
| Gross hemolysis | OK |
| Gross lipemia | OK |
| Gross icterus | OK |

## Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---|---|---|---|
| Serum Red | Refrigerated (preferred) | 14 days | |
| | Frozen | 14 days | |
| | Ambient | 3 hours | |

## Clinical & Interpretive

### Clinical Information

This test looks for a broad spectrum of prescription and over-the-counter drugs. It is designed to detect drugs that have toxic effects, as well as known antidotes or active therapies that a clinician can initiate to treat the toxic effect. The test is intended to help physicians manage an apparent overdose or intoxicated patient, to determine if a specific set of symptoms might be due to the presence of drugs. This test is not appropriate for drugs of abuse or illicit drug testing, including benzodiazepines, opioids, barbiturates, cocaine, and amphetamine type stimulants.

Drugs of toxic significance that are not detected by this test are digoxin, lithium, and many drugs of abuse or illicit drugs, some benzodiazepines, and most opiates.

Chain of custody is a record of the disposition of a specimen to document the personnel who collected, handled, and performed the analysis. When a specimen is submitted in this manner, analysis will be performed in such a way that it will withstand regular court scrutiny.

For more information see Emergency/Overdose for detection limits for drugs detected in this test.

### Reference Values
Drugs detected are presumptive. Additional testing may be required to confirm the presence of any drugs detected.

### Interpretation
The drugs that are detected by this test are listed in Emergency/Overdose section of Drug Testing.

The pharmacology of each drug determines how the test should be interpreted. A detailed discussion of each drug is beyond the scope of this text. If you wish to have a report interpreted, call 800-533-1710 and ask for a toxicology consultant.

Each report will indicate the drugs detected.

### Cautions
Specimens collected in serum gel tubes are not acceptable, as the drug/analyte can absorb on the gel and lead to falsely decreased concentrations.

### Clinical Reference
1. Langman LJ, Bechtel LK, Holstege CP. Clinical toxicology. In: Rifai N, Chiu RWK, Young I, Burnham C-AD, Wittwer CT, eds. Tietz Textbook of Laboratory Medicine. 7th ed. Elsevier; 2023:chap 43
2. Baselt RC. Disposition of Toxic Drugs and Chemical in Man. 12th ed. Biomedical Publications; 2020

## Performance

### Method Description
Screening is by gas chromatography mass spectroscopy.(Unpublished Mayo method)

### PDF Report
No

### Day(s) Performed
Monday through Sunday

### Report Available
3 to 4 days

### Specimen Retention Time
2 weeks

### Performing Laboratory Location
Rochester

## Fees & Codes

### Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

### Test Classification
This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

### CPT Code Information
80307

### LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---|---|---|
| DSSX | Drug Scrn, Prescription/OTC, CoC, S | 20785-2 |

| Result ID | Test Result Name | Result LOINC® Value |
|---|---|---|
| 36185 | Drugs detected: | 20785-2 |
| 36186 | Chain of Custody | 77202-0 |