
Lab Dept: Chemistry

Test Name: SUCCINYLACETONE, BLOOD SPOT

General Information

Lab Order Codes: SUAC

Synonyms: Tyrosemia Type I; Tyr 1; SUAC

CPT Codes: 83789 – Mass spectrometry and tandem mass spectrometry, not elsewhere specified, qualitative or quantitative

Test Includes: An interpretive report will be provided.

Logistics

Test Indications:

- Second-tier newborn screening for tyrosemia type 1 (Tyr 1) in blood spots with nonspecific elevations of tyrosine.
- Diagnosis of Tyr 1
- Follow-up of patients with Tyr 1

Lab Testing Sections: Chemistry - Sendouts

Phone Numbers: MIN Lab: 612-813-62

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 3 – 8 days

Special Instructions: Please follow collection information carefully to ensure a quality specimen is collected.

Specimen

Specimen Type: Blood

Container: Blood Spot Collection Card (Newborn Screening Card)

Draw Volume: 2 blood spots filled (Minimum: 1 blood spot filled)

Collection:	<ul style="list-style-type: none">● Do not use device or capillary tube containing EDTA to collect specimen.● Fill blood spot directly from puncture site.● At least 1 spot should be filled, prefer 2 spots.● Do not expose specimen to heat or direct sunlight.● Do not stack wet specimens● Keep specimen dry● If collection of a new specimen is necessary, let blood spot dry on collection card at ambient temperature at ambient temperature in horizontal position for 3 hours.
Special Processing:	Lab Staff: Allow specimen to completely dry in a horizontal position. Store and ship at room temperature.
Sample Rejection:	Blood spot shows serum rings or has multiple layers; mislabeled or unlabeled specimens

Interpretive

Reference Range:	An interpretive report will be provided Normal: <5.0 mcM Elevations of succinylacetone (SUAC) above the reference range are indicative of tyrosemia type 1 (Tyr1). Patients with Tyr I who are treated with diet/or 2-(2-nitro-4-trifluoromethylbenzoyl)-1,3 cyclohexanedione (nitrisionone) should have declining or normal values of SUAC.
Critical Values:	N/A
Limitations:	Normal levels may be seen in affected individuals undergoing treatment.
Methodology:	Flow Injection Analysis-Tandem Mass Spectrometry (MS/MS)
References:	Mayo Clinic Laboratories (March 2020)