
Lab Dept: Urine/Stool

Test Name: LEUKOTRIENE E4, URINE

General Information

Lab Order Codes: LTE4

Synonyms: Cysteinyl Leukotriene , Mastocytosis, Systemic Mast Cell, Activation Mast Cell Activation, Syndrome LTE4

CPT Codes: 82542 – Column chromatography, non drug analytes, NOS, qualitative or quantitative, each specimen

Test Includes: Leukotriene E4 and Creatinine, Urine. Creatinine is performed at no additional charge.

Logistics

Test Indications: Useful in evaluating patients with systemic mastocytosis, asthma and respiratory diseases.

Lab Testing Sections: Urine/Stool - Sendouts

Referred to: Mayo Medical Laboratories (MML code: LTE4)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 – 6 days, performed Tuesday and Friday

Special Instructions: See [Patient Preparation](#)
[Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens](#)

Specimen

Specimen Type: Urine, random or 24 hour collection (no preservative)

Container: Plastic 5 mL urine tube or Mayo transport tube with no preservatives, Supply T465

Draw Volume:	4 (min: 1 mL) urine
Processed Volume:	Same as Draw Volume
Collection:	Routine random or 24 hour urine collection
Special Processing:	Lab Staff: Send 4 (min: 1 mL) 24 hour or Random Urine Mayo transport tube (Mayo Supply: T465) with no preservatives. Store and Ship specimen at refrigerated temperatures. Forward promptly. Specimen is stable for 7 days refrigerated.
Patient Preparation:	Discontinue taking 5- Lipoxigenase inhibitor Zileuton/Zyflo at least 48 hours prior testing.
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive

Reference Range:	All ages: < or = 104 pg/mg creatinine
Critical Values:	N/A
Limitations:	Systemic mastocytosis is a herterogeneous disease and lack of elevated LTE4 does not exclude the diagnosis of Mast cell disease. Increased excretion of LTE4 has also been reported in the following conditions: asthma, eosinophilic pneumonia, respiratory syncytial virus infection, atopic dermatitis, Crohn's disease, and rheumatoid arthritis. This assay measures both LTE4 and 11-trans-LTE4 as markers of mast cell disease.
Methodology:	LTE4:Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) Creatinine: Enzymatic Colorimetric Assay
References:	Mayo Medical Laboratories July 2018