

Overview

Method Name

Reversed-phase UPLC-MS/MS

NY State Available

Yes

Specimen

Specimen Type

Serum

Specimen Required**Specimen Type:** Serum**Container/Tube:** Red**Specimen Volume:** 1 mL**Collection Instructions:** Draw blood in a plain red-top tube(s), serum gel tube is not acceptable. Spin down and send 1 mL of serum Frozen in a sterile, screw top tube.**Reject Due To**

Gross hemolysis: Mild OK; Gross Reject

Thawing: Warm Reject; Cold OK

Gross lipemia: Reject

Gross icterus: NA

Other: NA

Specimen Minimum Volume

0.5 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	14 days	
	Ambient	5 days	
	Refrigerated	5 days	

Clinical & Interpretive

Clinical Information

Isavuconazole is for the treatment of life threatening fungal infections, specifically invasive aspergillosis and invasive mucormycosis. There is a significant need for alternative antifungal therapies that address some of the limitations of voriconazole, such as reduced potential for nephrotoxicity for the intravenous formulation, in addition to other dose-related toxicities. Given the difficulty in diagnosis and similarity with which infections may present, having an antifungal that is effective for both indications would be particularly useful to physicians treating immunocompromised patients.

Reference Values

0.1-10. mcg/mL

Clinical Reference

1. Astellas Pharma US, Inc., CRESEMBA Package Insert.
2. von Mach MA1, Burhenne J, Weilemann LS. 2006. Accumulation of the solvent vehicle sulphobutylether beta cyclodextrin sodium in critically ill patients treated with intravenous voriconazole under renal replacement therapy. *BMC Clin Pharmacol*. 2006 6:6.
3. Pascual A1, Calandra T, Bolay S, Buclin T, Bille J, Marchetti O. 2008. Voriconazole therapeutic drug monitoring in patients with invasive mycoses improves efficacy and safety outcomes. *Clin Infect Dis*. 46(2):201-11.
4. Andes D, Pascual A, Marchetti O. Antifungal Therapeutic Drug Monitoring: Established and Emerging Indications. *Antimicrob Agents Chemother*. 2009 Jan; 53(1):24–34.
5. Goodwin ML, Drew RH. Antifungal serum concentration monitoring: an update. *J Antimicrob Chemother*. 2008 Jan; 61(1):17–25.
6. Pappas PG1, Kauffman CA, Andes D, et al. Clinical practice guidelines for the management of candidiasis: 2009 update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2009 Mar 1; 48(5):503-35.
7. Walsh TJ1, Anaissie EJ, Denning DW, et al. Treatment of aspergillosis: clinical practice guidelines of the Infectious Diseases Society of America. *Clin Infect Dis*. 2008 Feb 1; 46(3):326-60.

Performance

Method Description

Isavuconazole is extracted by protein precipitation with methanol followed by centrifugation. Chromatographic separation and quantitative analysis of the supernatant are performed using reversed-phase UPLC-MS/MS.

PDF Report

No

Performing Laboratory Location

Eurofins Viracor

Fees & Codes**Test Classification**

This test was developed and its performance characteristics determined by Viracor Eurofins. It has not been cleared or approved by the U.S. Food and Drug Administration.

CPT Code Information

80299

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
FIVCZ	Isavuconazole	Not Provided

Result ID	Reporting Name	LOINC®
FIVCZ	Isavuconazole	Not Provided