Human Herpesvirus 6 Qualitative/Quantitative Real-time PCR

Human Herpesvirus 6 (HHV-6, H6) is a betaherpesvirus closely related to Cytomegalovirus. Two distinct variants of the virus have been described, designated A and B. HHV-6 is normally acquired at an early age, causing febrile illnesses including exanthem subitum (roseola). Seroconversion mostly occurs by the age of 2 years, and seroprevalence in the healthy population exceeds 90%. HHV-6 persists for life in a latent form in mononuclear cells and in cells of various tissues. Reactivation of the virus may cause different diseases, such as encephalitis, fatal interstitial pneumonia, and multiple sclerosis. Within the transplant population, especially bone marrow and liver transplant patients, HHV-6 is known to be associated with skin rashes, graft-versus-host disease (GVHD), delayed engraftment encephalitis, fulminant hepatitis, and graft failure. Real-time PCR provides a rapid and sensitive method to determine the presence of target-specific amplifiable nucleic acids in all samples intended for PCR[1-4]. For more information, call the lab at 513-636-9820.

Reporting Units:

Qualitative: Positive/Negative

Quantitative: Copies/mL (or Copies/µg DNA for tissues)

Unacceptable Specimens:

- Frozen whole blood
- Swabs in gel or charcoal media

Shipping Conditions:

- Ambient if sent within 24 hours
- On cold packs if sent >24 hours after collection

Testing Schedule:

Testing for Human Herpesvirus 6 is performed Mon-Fri on first shift. For testing outside of this schedule, call the lab at 513-636-9820. **TAT:** 1-3 days

EPIC Test Codes:

Qualitative: 8003902

Quantitative: 8003903

CPT Codes:

Qualitative: 87532

Quantitative: 87533

Contact Information:

Cincinnati Children's Division of Pathology

Molecular and Genomic Pathology Services (MGPS)

Phone: 513-636-9820

Fax: 513-517-7099

Email: pathology@cchmc.org

Website: cincinnatichildrens.org/pathology

For pricing or billing questions, call 513-636-4261.

Shipping Address:

Cincinnati Children's Hospital Medical Center

Attn: Molecular and Genomic Pathology Services (MGPS)

3333 Burnet Ave, R2.001

Cincinnati, OH 45229

References:

1. Yoshikawa T. Human herpesvirus 6 infection in haematopoietic stem cell transplant recipients. *Brit J Haematol.* 124:421-432. 2004.
2. Allen U, Tellier R, Doyle J, et al. The utility of plasma polymerase chain reaction for human herpes virus-6 among pediatric bone marrow transplant recipients: results of a pilot study. *Bone Marrow Transpl.* 28:473-477. 2001.
3. Gilden D, Mahalingam R, Cohrs R, et al. Herpesvirus infections of the nervous system. *Nature Clin Practice.* 3:82-94. 2006.
4. Murray P, Baron E, Pfaller F, et al, eds. Manual of Clinical Microbiology. 7th ed. American Society of Microbiology Press, Washington D.C. 1999.

Sample Type	Qualitative	Quantitative	Volume Needed	Collection Container
Anticoagulated Blood or Bone Marrow*	√	√	1mL	Lavender Top (EDTA)
Aspirate: endotracheal tube, tracheal	√		1mL	Sterile Container
Body Fluids (i.e. amniotic, pericardial, pleural, vitreous)	√		1mL	Sterile Container
Bronchoalveolar Lavage (BAL) fluid	√		1mL	Sterile Container
Cerebrospinal Fluid (CSF)	√	√	1mL	Sterile Container
Plasma*	√	√	1mL	Lavender Top (EDTA)
Serum	√	√	1mL	Gold Top (SST)
Stool	√		1mL or 0.3 g	Sterile Container
Swab**: conjunctival, labial, lesion, mouth, nasal, naso-pharyngeal, rectal, skin, throat, vaginal, vesicle, wound	√		n/a	Red or Green Culturette Swab
Tissue***	√	√	0.3 g	Sterile Container
Urine	√		1mL	Sterile Container

* EDTA is preferred, sodium heparin is acceptable.
** Red or green top culturette swabs preferred; viral transport media acceptable.
*** Wrap tissue in gauze wetted slightly with sterile saline to keep moist during transport.

Clinical Lab Index:
H6 QL: https://www.testmenu.com/cincinnatichildrens/Tests/662811
H6 QN: https://www.testmenu.com/cincinnatichildrens/Tests/662812