

HIV 1/2 plus O

TECHNICAL UPDATE

DESCRIPTION/BACKGROUND INFORMATION

Human Immunodeficiency Virus Type 1 (HIV-1) has been isolated from patients with AIDS and AIDS-related complex (ARC). HIV-1 was thought to be the sole causative agent of these syndromes until 1986 when a second type of Human Immunodeficiency Virus (Human Immunodeficiency Virus Type 2 or HIV-2) was isolated and also reported to cause AIDS. Since the initial discovery hundreds of HIV-2 infections have been documented worldwide including cases of AIDS related to HIV-2.

This second immunodeficiency virus is similar to, but distinct from, HIV-1. Both viruses have similar morphology and lymphotropism and the modes of transmission appear to be identical. The HIV-1 and HIV-2 genomes exhibit about 60% homology in conserved genes such as gag and pol, and 39-45% homology in the envelope genes. Serologic studies have also shown that the core proteins of HIV-1 and HIV-2 display frequent cross-reactivity whereas the envelope proteins are more type specific.

Within the two major HIV types there is significant variation as well. By analyzing sequences of representative strains, HIV-1 has been divided into three groups, group M (for major), including at least ten subtypes (A through J) group O (for outlier) and group N (for non-M non-O). Similarly the HIV-2 strains have been classified into at least five subtypes (A through E). Some HIV-1 variants share 50% homology in their envelope genes with the sequences of more common prototype strains.

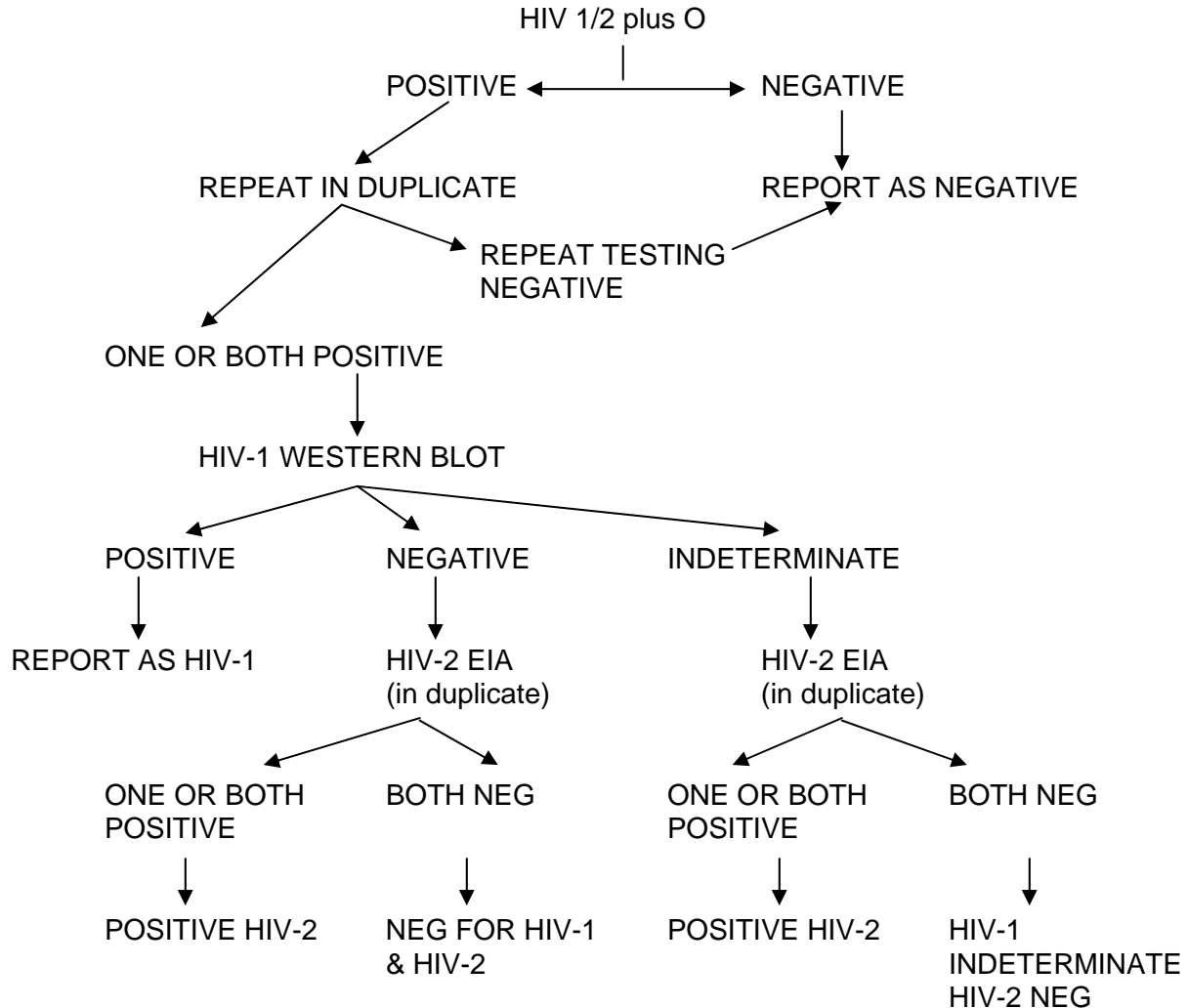
CLINICAL APPLICATION

The Genetic Systems HIV-1/HIV-2 plus O EIA incorporates highly conserved recombinant and synthetic peptide sequences representing HIV-1 (groups M and O) and HIV-2. It was developed to improve sensitivity and specificity of detection of antibodies to HIV-1 and/or HIV-2 for blood and plasma screening and as an aid in the diagnosis of HIV infection.

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SPECIMEN:	1 mL Serum
COLLECTION NOTES:	All positive screens confirmed by Western Blot Assay
SERUM SEPARATOR TUBE:	Yes
SUBMIT:	Refrigerated
REFERENCE RANGE:	Non-reactive
METHODOLOGY:	EIA
CPT CODES:	86703
TURN AROUND TIMES:	1-2 Days
NOTES:	State of Oregon requires an HIV Release Form for all physicians practicing in Oregon. Please submit with sample, if applicable. Forms may be obtained by calling Client Services

TESTING ALGORITHM



Interpath Laboratory will automatically submit all POSITIVE HIV 1/2 plus O specimens for HIV-1 Western Blot Confirmation. Any further testing has to be ordered by provider.

REFERENCES:

1. BIORAD Human Immunodeficiency Virus Type 1 & 2 package insert; May 2005.
2. CDC National AIDS Hotline, 1 -800-342-AIDS; Spanish 1-800-3444-SIDA; Deaf 1-800-243-7889.
3. CDC National Prevention Information Network, PO Box 6003, Rockville, Maryland 20849-6003; 1-800-458-5231
4. NCHSTP: <http://www.cdc.gov/nchstp/od/nchstp.html>.
5. DHAP: http://www.cdc.gov/nchstp/hiv_aids/dhap.htm.
6. NPIN: <http://www.cdcnpin.org>.