## **MP Diagnostics**

## HIV Blot 2.2



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TABLE 1: Sensitivity study of HIV-1 viral antigen reactivity with HIV-1 seropositive samples. (Number of samples = 197)

TABLE 2: Specificity study of HIV-1 viral antigen reactivity with normal donor samples and sera with other viral infections.

TABLE 3:

samples.

TABLE 4:

Sensitivity study of HIV-2 peptide band with

HIV-2 seropositive

(Number of samples = 178)

Specificity study of

HIV-2 peptide band with HIV-1 seropositive

sera, normal donor samples and sera with

other viral infections.

### 100% Sensitivity of HIV-1 viral antigen

SEROLOGICAL PROFILE	HIV BLOT 2.2 NUMBER (%)	DUPONT/ORTHO HIV-1 WB NUMBER (%)
GAG, POL and ENV	192 (97.5%)	188 (95.4%)
p24, p31, gp41 and/or gp120/gp160	187 (94.9%)	179 (90.9%)
ENV and GAG or POL	197 (100.0%)	197 (100.0%)

#### High Specificity of HIV-1 viral antigen

SAMPLE	NUMBER	POCITIVE.	HIV-1 REA	ACTIVITY
TYPE	TESTED	POSITIVE	INDETERMINATE*	NEGATIVE
Normal Donors	208	0	11	197
HTLV-1	5	0	0	5
CMV	5	0	1	4
EBV (IgM)	5	0	1	4
Varicella zoster (IgG)	5	0	1	4
Measles	6	0	2	4
Rubella	5	0	1	4
Mumps	4	0	1	3
Adenovirus	5	0	2	3
HSV	5	0	0	5
Dengue	5	0	1	4
Total	258	0	21	237

<sup>\*</sup>All showed as a p24 or p17 band only.

#### High Sensitivity for HIV-2 infection detection

HIV-2 WESTERN BLOT	HIV-2 PEPTIDE REACTIVITY		
SEROLOGICAL PROFILE*	POSITIVE	NEGATIVE	
GAG, POL and 2 ENV GAG, POL and 1 ENV	160 18	0 0	

<sup>\*</sup>Sera defined as positive by results of Pasteur New LAV Blot 2.

Data provided by Dr. Oliviero E. Varnier and Dr. Flavia Lillo. Laboratory of Human Retroviruses. University of Genoa.

#### High specificity of HIV-2 peptide with minimal cross reactivity to HIV-1

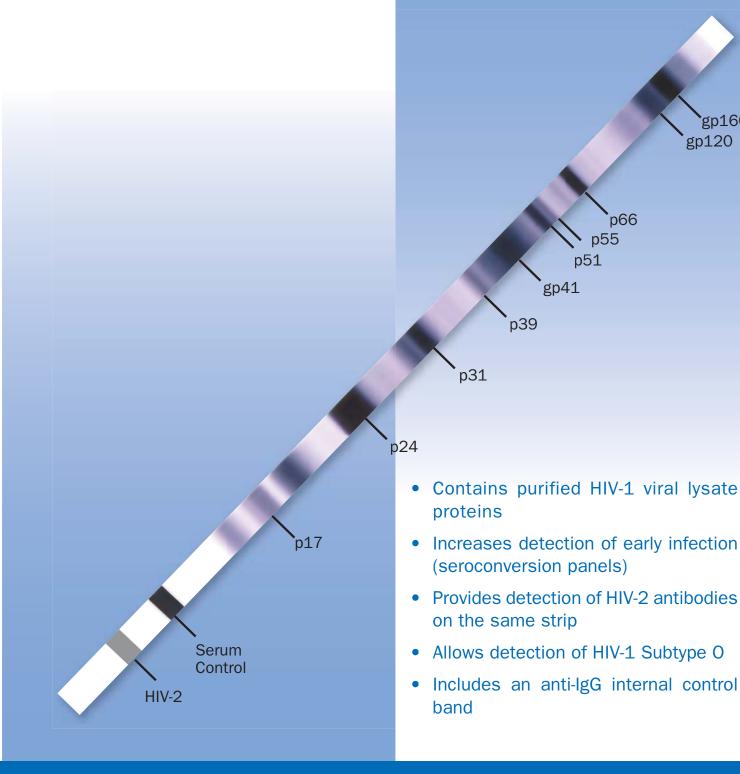
mg. specimenty of the 2 popular than this in a cross reactivity to the 2				
SAMPLE	NUMBER TESTED	HIV-2 PEPTIDE REACTIVITY		
TYPE		POSITIVE	NEGATIVE	
HIV-1 seropositive Normal Donors HTLV-1 seropositive CMV EBV (IgM) Varicella zoster (IgG) Measles Rubella Mumps Adenovirus HSV	197 208 5 5 5 5 6 5 4 5	16* 0 0 0 0 0 0 0 0 0 0 0	181 208 5 5 5 5 6 5 4 5	
Dengue	5	0	5	
Total	455	16	439	

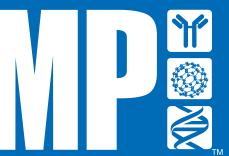
<sup>\*</sup> When tested on the HIV-2 Western Blot, 6 of these samples had reactivity with ENV and GAG or POL, and 9 of these samples had reactivity to only GAG and/or POL while 1 sample was negative.

A total of 15 commercial HIV-1 seroconversion panels were tested and results showed that the HIV Blot 2.2 was able to detect antibody to HIV earlier or in the same sample in all the panels, when compared to other similar tests.

(Panels used: BBI PRB903, PRB904, PRB909, PRB912, PRB916, PRB917, PRB918, PRB919, PRB921, PRB923, PRB924, PRB927, PRB928, PRB932, PRB940)

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Mornington Terrace, Harrogate North Yorkshire, HG1 5DH Tel: (44) 1423 523300 Email: sales@sterilab.co.uk

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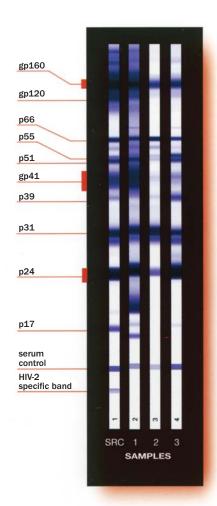
## HIV Blot 2.2 Western Blot Assay

HIV Blot 2.2 is an enzyme immunoassay for the in-vitro detection of antibodies to HIV in human serum or plasma. It is intended as a more specific confirmation test on blood or plasma specimens found repeatedly reactive using a screening procedure. HIV Blot 2.2 contains HIV-2 specific peptide band to aid in the detection of HIV-2 positivity. HIV Blot 2.2 also includes an anti-human IgG internal control band functioning as a sample addition control, reagent control and procedural control.

# **SEROCONVERSION SAMPLES** gp160 gp120 p66 p55 p51 gp41 p39 p31 p24 p17 serum control HIV-2 specific band BBI (BOSTON BIOMEDICAL INC.) PANEL L

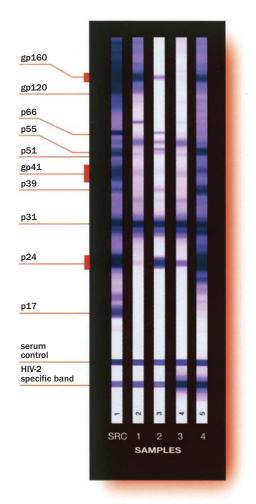
HIV Western Blot allows one to stage disease progression by monitoring development of antibodies to HIV-1 markers in samples collected at different times.

#### **HIV-1 SUBTYPE 0**



HIV-1 Subtype O profiles are quite variable and often appear to be similar to those seen with HIV-1 populations. However, some Subtype O sera express a profile where the gp160 band is significantly weaker than either the p24 or p31 bands. Additionally, gp41 antibodies are detected frequently in Subtype O positive sera, unlike results obtained with HIV-2 cross reactive populations.

#### **HIV-2 CROSS REACTIVITY**



Typical cross reactive profiles of an HIV-2 serum on the HIV-1 western blot demonstrate reactivity to at least GAG and/or POL antigens. However, it is common to find reactivity with all of the HIV-1 specific bands EXCEPT gp41. The absence of gp41 reactivity in the presence of reactivity with gp160 and gp120 and other antigens, p24, p31 and p66 is indicative of HIV-2. HIV Blot 2.2 includes an HIV-2 specific peptide band; positive reaction of a sample with this band is indicative of HIV-2 infection.

