

Anti-HIV-1 p24 R14102 PBS-5

Product overview

Catalog number	140072
Specificity	Antibody recognizes human immunodeficiency virus 1 p24 (HIV-1 p24)
Description	Recombinant rabbit antibody, cultured <i>in vitro</i> under conditions free from animal-derived components.
Product buffer solution	Phosphate-buffered saline (PBS) pH 7.4 with 0.095 % NaN ₃ as a preservative
Shelf life and storage	Unspecified, storage at 2–8 °C
Subclass	Rabbit IgG
Analyte description	HIV-1 p24 is an essential capsid protein of the Human Immunodeficiency Virus 1 (HIV-1) and has become an important target for IVD tests with the introduction of fourth and fifth generation assays. Detection of p24 in a patient's blood can provide an early indication of HIV infection and serves as a biomarker of active viral replication.

Parameters tested on each lot

Product appearance	Liquid, may turn slightly opaque during storage
Product concentration	5.0 mg/ml (+/-10 %) (A280 nm, 1 mg/ml, 1 cm = 1.5)
Immunoreactivity	80–120 % compared to the reference sample in an FIA test
IEF Profile	5.8–6.6
Purity	≥ 95 %

Kinetic parameters

Association rate constant	4.9×10^5 1/Ms
Dissociation rate constant	5.1×10^{-5} 1/s
Affinity constant	$K_A = 9.6 \times 10^9$ 1/M; $K_D = 1.1 \times 10^{-10}$ M (= 0.11 nM)
Determination method	BLI (Octet RED96e)
Determination antigen	Recombinant HIV-1 p24, Medix Biochemica (Cat V9002)



Cross-reactivities

Recognizes HIV-1 p24 group O and N. Antibody also recognizes HIV-1 p24 group M clades A, B, C and D.

Does not recognize HIV-1 p24 group M clade E, HIV-2 p26, Hepatitis C core antigen, Hepatitis B surface and core antigen.

Epitope

Not determined

Pair recommendations

		DETECTION	
		R14101	R14102
CAPTURE	R14101	-	+
	R14102	+	-

Following pairs are especially recommended for the below mentioned assays:

FIA: R14102 (capture) – R14101 (detection)

LF: R14102 (membrane) – R14101 (particles)

Please note that pair recommendations are based on results obtained by our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations are only indicative.

Platforms tested

FIA, LF, ELISA, WB

Antigens tested

Recombinant HIV-1 p24 antigen, Medix Biochemica V9002.

Product stability

TEMPERATURE, TIME	RESULT
-70 °C, 21 days	OK
-20 °C, 21 days	OK
+4 °C, 21 days	OK
+35 °C, 7 days	OK
+35 °C, 21 days	Minor charge alterations
+45 °C, 3 days	OK
+45 °C, 7 days	Minor charge alterations

Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge or composition of the antibody. Please note that the shelf life given on the first page is based on real time stability testing at 2–8 °C in the product buffer.

Miscellaneous

Antibody recognizes WHO HIV-1 p24 international standard (NIBSC code: 22/230) and WHO HIV-1 p24 international reference panel (NIBSC code: 16/210).

References

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