

Anti-HIV-1 p24 R14101 PBS-5

Product overview

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| Catalog number | 140071 |
| 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 = 1.4) |
| Immunoreactivity | 80–120 % compared to the reference sample in an FIA test |
| IEF Profile | 6.2–7.0 |
| Purity | ≥ 95 % |

Kinetic parameters

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|----------------------------|--|
| Association rate constant | 5.2×10^5 1/Ms |
| Dissociation rate constant | 8.4×10^{-5} 1/s |
| Affinity constant | $K_A = 6.2 \times 10^9$ 1/M; $K_D = 1.7 \times 10^{-10}$ M (= 0.17 nM) |
| Determination method | BLI (Octet RED96e) |
| Determination antigen | Recombinant HIV-1 p24, Medix Biochemica (Cat V9002) |



Legal disclaimer

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, 21 days | OK |
| +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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