Datasheet for Antibody 447-52D

Designation	447-52D (also designated as 447)
Product	human monoclonal antibody to V3 of HIV-1 gp120 epitope KSIHIGPGRAF
Product no.	AB014
Lot no.	xxx
Shelf life	unopened at least until: mm yyyy
Volume	xxx µl
Concentration	x.xx mg/ml
Method of analysis	OD 280 nm
Isotype	IgG3 (λ)
Host cell	hetero-hybridoma
Purification	protein A affinity chromatography
Product buffer	PBS – sterile, no preservatives Handling under non-sterile conditions can cause contamination leading to protein degradation!
Formulation	liquid
Shipping conditions	+ 2-25 °C
Storage conditions	+ 2-8 °C

Note: For use as laboratory research reagent only

The permission to use the cell line for the manufacture of this product was obtained from New York University School of Medicine, 650 First Avenue, 6 Floor, New York, NY 10016, USA. Special acknowledgement is given to Dr. Susan Zolla-Pazner and Dr. Miroslaw K. Gorny, both New York University School of Medicine, who established and characterized this antibody.

See page 2 for more detailed information about antibody 447-52D

Polymun Scientific Immunbiologische Forschung GmbH, September 17th 2018

Polymun Scientific Immunbiologische Forschung GmbH | Donaustr. 99, 3400 Klosterneuburg, Austria
T +43-2243-25060-300 F +43-2243-25060-399 E office@polymun.com www.polymun.com

Human monoclonal antibody (mAb) 447-52D was originally derived from an individual infected with clade B HIV-1 and was generated using a cellular technique (1). The antibody neutralizes laboratory strains (1, 2), clinical isolates (3) and pseudotyped viruses (4) in the range between 30% and 50% of HIV-1 in panels of tested viruses from clade A, B, F and H (4, 5). It preferentially neutralizes viruses that contain the GPGR motif in the V3 crown, with limited capacity against those with the GPGQ motif (4). Its neutralization potency against pseudoviruses with an R to Q mutation in the crown motif is decreased ~700-fold (6). 447-52D is extensively cross-reactive, especially with V3 peptides representing sequences of clade B viruses (7). The X-ray structure of this antibody complexed with a V3 peptide explained that it depends on reactivity with the conserved GPxR sequence at the tip of the loop and on interactions with the main chain of the surrounding variable sequence (8, 9). This mAb binds to virus-infected cells (10), and reacts with intact virions (11). Use in ELISA at 1 µg/ml.

1. Gorny et al., J Virol., 1992, 66:7538-7542.
2. Gorny et al., J Immunol., 1993, 150:635-643.
3. Conley et al., J Virol., 1994, 68:6994-7000.
4. Hioe et al., PLoS ONE, 2010, 5:e10254.
5. Binley et al., J. Virol. 2004, 78:13232-13252.
6. Krachmarov et al., J Virol., 2006, 80:7127-7135.
7. Gorny et al., J Immunol., 1997, 159:5114-5122.
8. Stanfield et al., Structure, 2004, 12:193-204.
9. Burke et al., Structure, 2009, 17:1538-1546.
10. Zolla-Pazner et al., J Virol., 1995, 69:3807-3815.
11. Nyambi et al., J Virol., 1998, 72:9384-9391.