ALPHA DIAGNOSTIC INTERNATIONAL

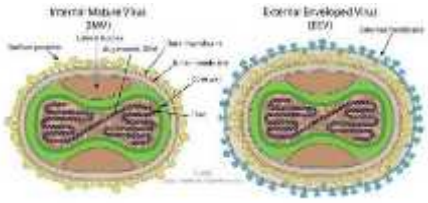
LIFE TECH Life Technologies™ Your Molecular & Cell Technology Partner

Product Specification Sheet

Vaccinia virus (VACV or VV or Small Pox) Antibodies

½ **Cat.** # **VACV11-S**	Rabbit Anti-VACV IgG	**SIZE:** 0.1 ml
½ **Cat.** # **VACV11-HRP**	Rabbit Anti- VACV IgG-**HRP** Conjugate	**SIZE**: 0.5 ml
½ **Cat.** # **VACV11-BTN**	Rabbit Anti- VACV IgG-**Biotin** Conjugate	**SIZE**: 0.5 ml
½ **Cat.** # **VACV11-FITC**	Rabbit Anti- VACV IgG-**Biotin** Conjugate	**SIZE**: 0.5 ml

Vaccinia virus (VACV or VV) is a large, complex, enveloped virus belonging to the poxvirus family. Viral particles (virions) are generally enveloped (external enveloped virion- EEV), though the intracellular mature virion (IMV) form of the virus, which contains different envelope, is also infectious. They vary in their shape depending upon the species but are generally shaped like a brick or as an oval form similar to a rounded brick. The virion is exceptionally large, its size is around 200 nm in diameter and carries its genome in a single, linear, dsDNA, which encodes for approximately 250 genes.



Vaccinia virus was used for smallpox vaccination via inoculation into the superficial layers of the skin of the upper arm. However, with the eradication of smallpox, routine vaccination with Vaccinia virus has ceased. Recent interest in vaccinia has focused on its possible usage as a vector for immunization against other viruses. Currently, the vaccine is only administered to health care workers or research personnel who have a high risk of contracting the Variola virus, and to the military personnel of the United States of America. Due to the present threat of smallpox-related bioterrorism, there is a possibility the vaccine may have to be widely administered again in the future.

Lister (also known as Elstree): the English **vaccine strain** used by Leslie Collier for vaccine production during the World Health Organization Smallpox Eradication Campaign (SEC). **Modified vaccinia Ankara (also known as MVA)**: a highly attenuated strain created by passaging vaccinia virus several hundred times in chicken embryo fibroblasts. Unlike some other vaccinia strains it may be safer to use in humans who have weaker immune systems due to being very young, very old, having HIV/AIDS, etc.

Source of Antigen and Antibodies

Antigen	New York City Board of Health (NYCBOH) strain
Ab Host/type	Rabbit, IgG purified (designated VACV11-S) supplied in PBS, pH 7.4, and 0.01% azide
2-Ab	Goat Anti-rabbit IgG-HRP cat # 20320 (biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

VACV11-S Suggested antibody Dilutions

ELISA/Western 1:1000-:1:5000
IHC: 1:500-1:2000

Cat # VACV11-HRP: Anti-VXV IgG was purified using protein A/G column and purified IgG was coupled to HRP (**Cat # VACV11-HRP**). Antibody:HRP molar ratio is ~1.0-1.5),. Anti-VXV-HRP conjugate is supplied in PBS, pH 7.4, 1% BSA containing 0.01% thimerosal as preservative. Do not add azide as it inhibits HRP activity. Store at 2-4oC for 2-4 weeks and at –20oC in suitable aliquots for long term storage. Do not store diluted (working solution) for more than a few hours.

Cat # VACV11-HRP Suggested Conjugate Dilutions
ELISA/Western 1:1000-1:5000

Cat# Cat # VACV11-BTN, Biotin-conjugate

Purified antibody was coupled to Biotin using Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC**)** at F/P ratio ~10-20:1. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** or **liquid** (0.5 ml) form. Reconstitute powder in 0.5 ml water to prepare stock solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested dilutions: ELISA/Western 1:1,000-1:5,000

Cat# VACV11-FITC, FITC-conjugate

Purified antibody was coupled to FITC at F/P ratio ~3:7. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** or **liquid** form (0.5 ml). Reconstitute powder in PBS in 0.5 ml to prepare stock solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:200-1:2000 for immunofluorescence.
Absorption Wavelength: 495 nm **Emission**: 528 nm

Specificity of antibodies

Antibodies are reactive with the Lister & MVA strains of Vaccinia and Monkeypox. Does not crossreact with Parainfluenza (1-3), RSV, Adeno, Influenza A&B or HSV1 or with uninfected cells.

General References: Tolonen N (2001) Mol. Niol. Cell 12, 2031-20346; Smith GL (2002) J. Gen. Virol. 83, 2915-2931; Davies MV (1993) J. Virol. 67, 1688-1692; Vanderplasschen, A (2003) Current Gene Ther. 3, 583-595; Gubser C (2004) J. Gen. Virol. 85, 105.

*This product is for In vitro research use only.

Other Fusion tag antibodies available from ADI

VXV12-M Mouse Monoclonal Anti-Vaccinia virus IgG, aff pure
VXV13-M Mouse Monoclonal Anti-Vaccinia virus A27L protein IgG, aff pure
VXV14-M Mouse Monoclonal Anti-Vaccinia virus A33R protein IgG, aff pure V

VACV11-S 150410A

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com