

## Human Papillomavirus 16 (HPV16) E2 Monoclonal Mouse Antibody (TVG 261)



## **Product Description**

The human papilloma virus (HPV) family of DNA tumor viruses includes HPV16, a strain that is responsible for the largest number of cases of cervical cancers linked to the family. HPV16E1 and HPV16E2 are proteins that are involved in the regulation of viral DNA replication and are important for infected cell homeostasis. HPV16E2 specifically regulates the expression of the E6 and E7 oncoproteins by binding to four sites within the viral long control region, possibly involving interactions with nuclear hormone receptors. Integration of the HPV genome into the host DNA usually disrupts the HPV16E2 gene open reading frames, resulting in an overexpression of E6 and E7 genes, an event that may lead to the malignant transformation of cervical cancer. HPV16E2 is also able to induce apoptotic cell death via two pathways: the first through the binding of p53 and the second through the binding of the viral genome.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 3073, Anti-HPV16 E2 (TVG 261)

## Product attributes

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Product attributes			
Antibody number	#3073		
Antibody reactivity (target)	HPV16 E2		
Antibody type	Primary		
Host species	Mouse		
Clonality	Monoclonal		
Clone	TVG 261		
Isotype	IgG1, kappa		
Molecular weight	43 kDa		
Synonyms	HPV16 regulatory protein E2; Human papilloma virus 16 E2; Human papilloma virus 16 regulatory protein E2; Human papillomavirus type 16 E2; Human papillomavirus type 16 regulatory protein E2; Regulatory protein E2		
Human gene symbol	Not Applicable		
Entrez gene ID	Not Applicable		
SwissProt	Not Applicable		
Unigene	Not Applicable		
Immunogen	Raised against Vaccinia-E2 followed by intravenous injection of the maltose binding protein MBP-E2		
Antibody target cellular localization	Nucleus		
Species reactivity	HPV-16		
Expected antibody applications	IF (published for clone), WB (published for clone)		
Antibody application notes	Western blot 1-2 ug/mL; Optimal dilution for a specific application should be determined.		
Positive control	HPV-16 infected cells. Cervical tissue.		
Shipping condition	Room temperature		
Storage Conditions	Note: store BSA-free antibodies at -10 to -35°C, Store at 2 to 8°C, Protect fluorescent conjugates from light		
Regulatory status	For research use only (RUO)		
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide		
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended		
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Cervical cancer

Tumor expression

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

- 1. J Virol(2003) 77(3): 2021-2028. (WB)
- 2. J Virol (2017) 91(5): e02305-16. (IF)
- 3. Virology (2018) 521: 62-68. (WB)