

HPV16 E2 (TVG 261): sc-53326

BACKGROUND

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.

REFERENCES

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SOURCE

HPV16 E2 (TVG 261) is a mouse monoclonal antibody raised against Vaccinia-E2 followed by intravenous injection of the maltose binding protein MBP-E2.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HPV16 E2 (TVG 261) is recommended for detection of HPV16 E2 by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of HPV16 E2: 43 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

SELECT PRODUCT CITATIONS

- Prabhavathy, D., Prabhakar, B.N. and Karunakaran, D. 2014. HPV16 E2-mediated potentiation of NFκB activation induced by TNF-α involves parallel activation of Stat3 with a reduction in E2-induced apoptosis. *Mol. Cell. Biochem.* 394: 77-90.
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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.