

# HSV-1 ICP27 (vP-20): sc-17544

## BACKGROUND

Herpes simplex virus type 1 (HSV-1) is a neurotropic virus that establishes life-long latent infections in the sensory neurons of the host. One of the HSV-1 proteins involved in converting the cell into an efficient producer of viral gene products is the infected cell polypeptide 27 or ICP27. HSV-1 immediate-early protein ICP27 is a nuclear phosphoprotein that is required for viral growth during lytic infection. Analysis of viral mutants defective in this function has shown that ICP27 has a number of effects on gene expression including a contribution to the shut off of host protein synthesis, the stimulation of HSV-1 early gene expression and DNA replication, and the induction of late viral gene products. ICP27 performs these functions primarily post-transcriptionally at the level of RNA processing. ICP27 affects three important RNA processing events: polyadenylation, splicing and nuclear RNA export.

## REFERENCES

- Hardy, W.R. and Sandri-Goldin, R.M. 1994. Herpes simplex virus inhibits host cell splicing, and regulatory protein ICP27 is required for this effect. *J. Virol.* 68: 7790-7799.
- Hibbard, M.K. and Sandri-Goldin, R.M. 1995. Arginine-rich regions succeeding the nuclear localization region of the HSV-1 regulatory protein ICP27 are required for efficient nuclear localization and late gene expression. *J. Virol.* 69: 4656-4667.
- Sandri-Goldin, R.M. 1998. ICP27 mediates herpes simplex virus RNA export by shuttling through a leucine-rich nuclear export signal and binding viral intronless RNAs through an RGG motif. *Genes Dev.* 12: 868-879.
- Zhi, Y., Sciabica, K.S. and Sandri-Goldin, R.M. 1999. Self-interaction of the herpes simplex virus type 1 regulatory protein ICP27. *Virology* 257: 341-351.
- Stingly, S.W., Garcia Ramirez, J.J., Aguilar, S.A., Simmen, K., Sandri-Goldin, R.M., Ghazal, P.H. and Wagner, E.K. 2000. Global analysis of herpes simplex virus type 1 transcription using an oligonucleotide-based DNA microarray. *J. Virol.* 74: 9916-9927.

## SOURCE

HSV-1 ICP27 (vP-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HSV-1 ICP27.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17544 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

HSV-1 ICP27 (vP-20) is recommended for detection of ICP27 of HSV-1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of HSV-1 ICP27: 63 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## SELECT PRODUCT CITATIONS

- Choudhary, A., Hiscott, P., Hart, C.A., Kaye, S.B., Batterbury, M. and Grierson, I. 2005. Suppression of Thrombospondin 1 and 2 production by herpes simplex virus 1 infection in cultured keratocytes. *Mol. Vis.* 11: 163-168.
- Yao, F., Murakami, N., Bleiziffer, O., Zhang, P., Akhrameyeva, N.V., Xu, X. and Brans, R. 2010. Development of a regulatable oncolytic herpes simplex virus type 1 recombinant virus for tumor therapy. *J. Virol.* 84: 8163-8171.

## RESEARCH USE

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