



Orf Virus (6E8): sc-101590

BACKGROUND

Belonging to the Poxviridae family, the parapoxvirus genus includes large, oval double-stranded DNA viruses. Their unique spiral coat distinguishes them from other poxviruses. The Orf Virus belongs to the parapoxvirus genus, which also includes milker's nodule virus. The surface tubules of the Orf Virus form long crisscross designs that are observable on negatively stained preparations by electron microscopy. Orf Virus infection is widespread in sheep and goats, but can also be transmitted through fomites or direct contact inoculation to humans, especially those within farming communities and meat handlers. In humans, Orf infection presents as reddish weeping nodules on the dorsum of the hands and fingers and occasionally involves lymph nodes. In sheep and goats, symptoms include papules and pustules on the lips and muzzle. Generally, Orf infection is benign and self-limiting, however it can be progressive and life-threatening in immune-compromised hosts.

REFERENCES

1. McKeever, D.J., Jenkinson, D.M., Hutchison, G. and Reid, H.W. 1988. Studies of the pathogenesis of Orf Virus infection in sheep. *J. Comp. Pathol.* 99: 317-328.
2. Haig, D.M., McInnes, C., Deane, D., Reid, H. and Mercer, A. 1997. The immune and inflammatory response to Orf Virus. *Comp. Immunol. Microbiol. Infect. Dis.* 20: 197-204.
3. Crumie, A. 1998. The Orf Virus: a disease of the farming community. *Community Nurse* 4: 44-45.
4. Haig, D.M. and Mercer, A.A. 1998. Ovine diseases. *Orf. Vet. Res.* 29: 311-326.
5. Haig, D.M. and Fleming, S. 1999. Immunomodulation by virulence proteins of the parapoxvirus Orf Virus. *Vet. Immunol. Immunopathol.* 72: 81-86.
6. Haig, D.M. and McInnes, C.J. 2002. Immunity and counter-immunity during infection with the parapoxvirus Orf Virus. *Virus Res.* 88: 3-16.
7. Haig, D.M. 2006. Orf Virus infection and host immunity. *Curr. Opin. Infect. Dis.* 19: 127-131.
8. Weide, B., Metzler, G., Eigentler, T.K., Fehrenbacher, B., Sönnichsen, K. and Garbe, C. 2009. Inflammatory nodules around the axilla: an uncommon localization of Orf Virus infection. *Clin. Exp. Dermatol.* 34: 240-242.

SOURCE

Orf Virus (6E8) is a mouse monoclonal antibody raised against a lysate of orf-11 infected fetal muscle cells of lamb origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Orf Virus (6E8) is recommended for detection of the envelope protein of all Orf Virus strains 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).

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

1. Friederichs, S., Krebs, S., Blum, H., Lang, H. and Büttner, M. 2015. Parapoxvirus (PPV) of red deer reveals subclinical infection and confirms a unique species. *J. Gen. Virol.* 96: 1446-1462.
2. Schneider, L.E., Protschka, M., Müller, U., Muhsen, M., Magin, T.M., Anderegg, U., Saalbach, A., Büttner, M., Alber, G. and Siegemund, S. 2019. Orf Virus infection of human keratinocytes and dermal fibroblasts: limited virus detection and interference with intercellular adhesion molecule-1 up-regulation. *Exp. Dermatol.* 28: 142-151.

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.