

USP46 Knockout Cell Lysates & gRNAs

Ready to use Cell Lysates

USP46 is a deubiquitinating enzyme involved in key cellular processes such as protein turnover, DNA repair, and signal transduction—functions often disrupted in diseases like cancer, neurodevelopmental disorders, and chronic inflammation. USP46 knockout (KO) cell lines are a useful tool for investigating USP46's role in disease progression, identifying novel drug targets, and assessing the impact of candidate therapeutics in a controlled genetic background.

The technology comprises USP46 KO 293T cells and guide RNAs (gRNAs) designed for the specific knockout of the USP46 gene in human cells. This innovative approach allows for the detailed study of USP46's function and the validation of antibody specificity, providing crucial insights into gene function and regulation.

The Technology

Researchers at Virginia Commonwealth University utilized cutting-edge CRISPR/Cas9 gene-editing technology to knock out the USP46 gene. Two guide RNAs (gRNAs) targeting the coding regions of USP46 were carefully designed and introduced into 293T cells. Following puromycin selection, individual cell clones were expanded and validated through immunoblotting to confirm successful gene knockout.

Benefits

- » Readily available KO cell lysates
- » CRISPR/Cas9 technology
- » Precise verification of antibodies

Applications

- » Verify antibody specificity
- » Gene function and regulation
- » Drug Discovery

License Status:

This technology is available for licensing to industry for further development and commercialization

Category:

Biomedical Research Tool

VCU Tech #:

WAN-24-070

Investigators:

Hengbin Wang, Ph.D.

Additional Information:

Contact us about this technology

Magdalena K. Morgan, Ph.D.,
Director of Licensing
mkmorgan@vcu.edu