

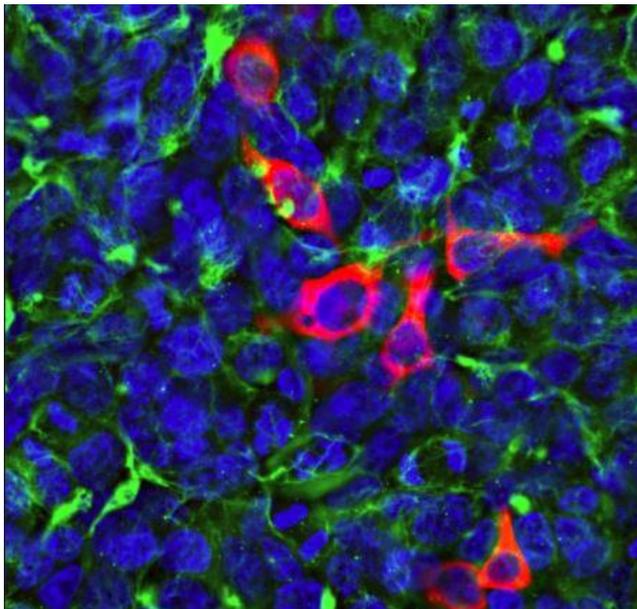


Catalog Number:	MO22209	Host:	Mouse
Product Type:	Mouse Monoclonal IgG1	Species Reactivity:	NA
Immunogen Sequence:	Recombinant CasΦ/Cas-12j expressed in and purified from <i>E. coli</i>	Format:	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Applications:	Immunofluorescence: 1:1,000 Western Blot: 1:1,000-2,000		
Storage:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

Application Notes

Description/Data

There has been much recent interest in gene editing and other genetic manipulations by CRISPR-Cas family enzymes. One of these enzymes is referred to as CasΦ and also known as Cas-12j. The use of such smaller enzymes leaves more room for other nucleic acid sequences in AAV and other viral vectors which typically have a limited DNA capacity, thus allowing more versatility for new CRISPR based manipulations.



MO22209 antibody was made against a recombinant construct of the full sequence of CasΦ-2. The antibody works well on western blots of crude homogenates of HEK293 cells transfected with the Cas-Φ-2 DNA, cleanly producing the appropriate sized band. In addition, such transfected cells show clean and strong cytoplasmic staining by immunofluorescence staining with this antibody.

Image: Immunofluorescent analysis of HEK293 cells transfected with pCI-Neo-Mod vector (5) including DNA encoding the CasΦ protein, stained with mouse mAb against CasΦ, MO22209, dilution 1:2,000, in red, and costained with rabbit pAb to vimentin, dilution 1:2,000, in green. The blue is Hoechst staining of nuclear DNA. The MCA-5F95 antibody reveals expression of the CasΦ protein only in transfected cells. The vimentin antibody stains the cytoskeletal intermediate filament network in all cells.

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