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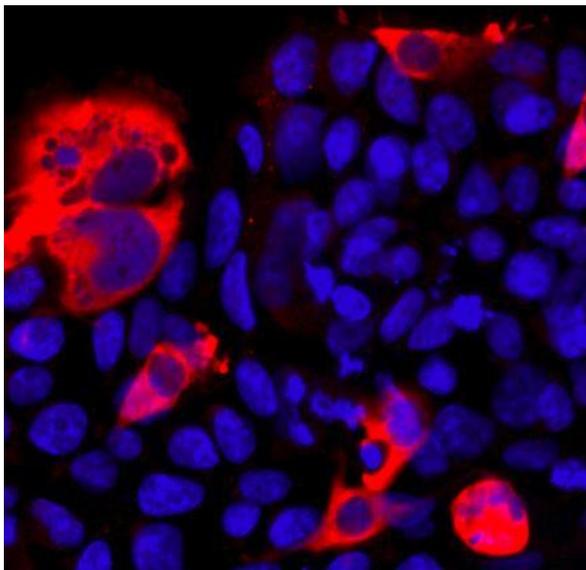
<b>Catalog Number:</b>	RA22145	<b>Host:</b>	Rabbit
<b>Product Type:</b>	Rabbit Polyclonal	<b>Species Reactivity:</b>	NA
<b>Immunogen Sequence:</b>	Full length CasΦ-2 expressed in and purified from <i>E. coli</i> .	<b>Format:</b>	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
<b>Applications:</b>	Immunofluorescence: 1:2,000-5,000 Western Blot: 1:1,000-2,000		
<b>Storage:</b>	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.		

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### 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.



RA22145 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 CasΦ-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 including DNA encoding full length CasΦ protein and stained with rabbit pAb against CasΦ, RA22145, in red. The blue is Hoechst staining of nuclear DNA. The antibody reveals cytoplasmic expression of the CasΦ protein only in transfected cells.*

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