

## Why to upgrade your DNA extraction with **Fire Monkey**

NOVEMBER 2020

Fire Monkey/Fire Flower is a spin-column based Nucleic Acid Isolation and Purification (NAIP) kit that performs High Molecular Weight-DNA (HMW-DNA) extraction and simultaneous size selection



From sample to DNA in <b>1h</b>		Bacteria cells throughput up to <b>~26 Gb</b>
Spin column Standard format	<b>FIRE MONKEY</b> HMW-DNA extraction kit	<b>10-20kb</b> Size selection Cut-off
<b>&gt; 100kb</b> Average extract size	<b>N50</b> mammalian cells up to <b>62 kb</b>	<b>XY</b>

Quick protocol <b>15m</b>		<b>5x</b> Bigger MW cut-off vs SPRI beads
Spin column Standard format	<b>FIRE FLOWER</b> DNA size selection kit	<b>COMPATIBLE</b> with all existing NAIP kits
Removes DNA fragments <b>&lt; 10kb</b>	<b>DOUBLE</b> N50 and average read	

### Simpler operation

I can't believe you get High Molecular Weight DNA from a spin column

### Faster processing

Immediately ready to use in one hour and that includes size selection

### Better results

Structural clarity from the average DNA lengths of >100kb

### Cheaper sequencing

Big yield of Not too short/Not too long DNA cuts \$/Gb costs

## VALIDATION BY CUSTOMERS

### Biocompare review customer says:

"Other available kits in the market are nowhere near to this RevoluGen kit"

<https://www.biocompare.com/Product-Reviews/564618-High-Quality-DNA-extraction-for-long-read-sequencing/?catid=24943>

### Public external validation:

Fire Monkey and Illumina reads used for AMR Characterization:

Rasheed F *et al* *Microorganisms* 8 (9) 1336 (<https://doi.org/10.3390/microorganisms8091336>)  
Emergence of Resistance to Fluoroquinolones and Third-Generation Cephalosporins in Salmonella Typhi in Lahore, Pakistan

Fire Monkey and combined Nanopore/Illumina reads used for complete genome assembly of rare food chain pathogen. Public Health England reference lab:

Gao R *et al* *Microbiology Resource Announcements* Volume: 9, Issue: 35. e00280-20 (<https://mra.asm.org/content/9/35/e00280-20>)  
Complete Genome Assembly of the Rare Salmonella enterica Serovar Adjame Using Nanopore and Illumina Sequence Reads

Fire Monkey and Nanopore reads used to characterize emerging resistance in a food-chain pathogen sub-population:

Zhang CZ *et al* *Journal of Antimicrobial Chemotherapy* dkaa288 (<https://academic.oup.com/jac/advance-article-abstract/doi/10.1093/jac/dkaa288/5880198?redirectedFrom=fulltext>)  
Emergence of ciprofloxacin heteroresistance in foodborne Salmonella enterica serovar Agona.

Fire Monkey and 10x-Illumina reads used for animal chromosome haplotyping. Dana-Farber Cancer Institute, Harvard University:

Tourdot RW & Zhang CZ *bioRxiv* (<https://doi.org/10.1101/629337>) Determination of complete chromosomal haplotypes by bulk DNA sequencing

Fire Monkey Total Nucleic Acid and PCR analysis of DNA and messenger RNA used to detect targets of clinical infectious disease samples:

Todd AV & Lima NE Nucleic Acid Ratio Determination (Patent Application), Pub. No.: US 2020/0199651 (<https://patents.justia.com/patent/20200199651>)