Example CRISPR search strategy

> **Try searching first for a gRNA, and then identify a compatible Cas nuclease. Then, search separately for a Cas nuclease.**

If you are looking for tips or guidance on building your first search for CRISPR reagents, here's a strategy to try. There is more than one way to arrive at meaningful results in ASCEND by BenchSci, but try this to start. As a general principle, start with a broad search for gRNA against your target of interest and then iteratively narrow the search by applying filters.

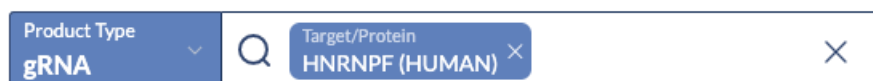## Scenario

You are looking to knockout the human HNRNPF gene.

Step one: Select the **Product Type**

Open the **Product Type** Filter and select CRISPR gRNA. Optional — apply the **Application** filter
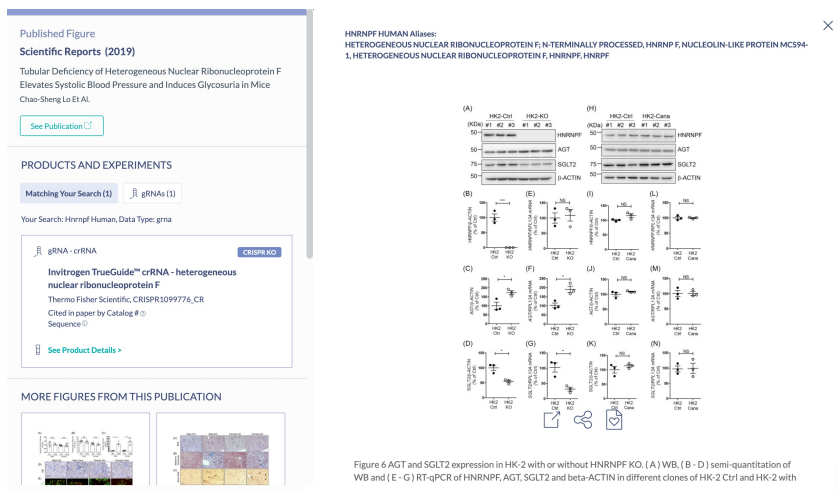

Step two: Search for your target

Enter the target, HNRNPF into the search bar.

Step three: Evaluate the figures or products results

Open any figure thumbnails that appear interesting, and (optional) follow the link to the product page.

Published Figure
Scientific Reports (2019)
Tubular Deficiency of Heterogeneous Nuclear Ribonucleoprotein F Elevates Systolic Blood Pressure and Induces Glycosuria in Mice
Chao-Sheng Lo Et Al.

See Publication

PRODUCTS AND EXPERIMENTS

Matching Your Search (1) gRNAs (1)

Your Search: Hnrnpf Human, Data Type: grna

gRNA - crRNA   CRISPR KO

Invitrogen TrueGuide™ crRNA - heterogeneous nuclear ribonucleoprotein F
Thermo Fisher Scientific, CRISPR1099776_CR
Cited in paper by Catalog #
Sequence

See Product Details >

MORE FIGURES FROM THIS PUBLICATION

HNRNPF HUMAN Aliases:
HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN F; N-TERMINALLY PROCESSED, HNRNP F, NUCLEOLIN-LIKE PROTEIN MCS94-1, HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN F, HNRNPF, HNRNPF

Figure 6 AGT and SGLT2 expression in HK-2 with or without HNRNPF KO. (A) WB, (B - D) semi-quantitation of WB and (E - G) RT-qPCR of HNRNPF, AGT, SGLT2 and beta-ACTIN in different clones of HK-2 Ctrl and HK-2 with

Step four: Evaluate product specs on the product page

The product page can give you sequence information, target species, target location, scores for on- and/or off-target effects, PAM sequence and Cas nuclease compatibility. In this case, the gRNA is compatible with Cas9.

Target	HNRNPF, NUCLEOLIN-LIKE PROTEIN MCS94-1 +1 more
Target Species	Human
Cas Compatibility	Cas9
Sequence	GTAGATGAAATGGACACCTG
Strand	Forward
PAM	CGG
Chr Location	Chr.10: 43385617 - 43409248 on GRCh38
Target Location	Exon 4
Score	95.96/100
Brand	TrueGuide™

Step five: Search for a Cas nuclease

Start a new search for a Cas nuclease compatible with your gRNA, **but without a target in the search bar**. Here, you can select in what format you'd like your Cas Nuclease; a vector, purified protein, or mRNA.
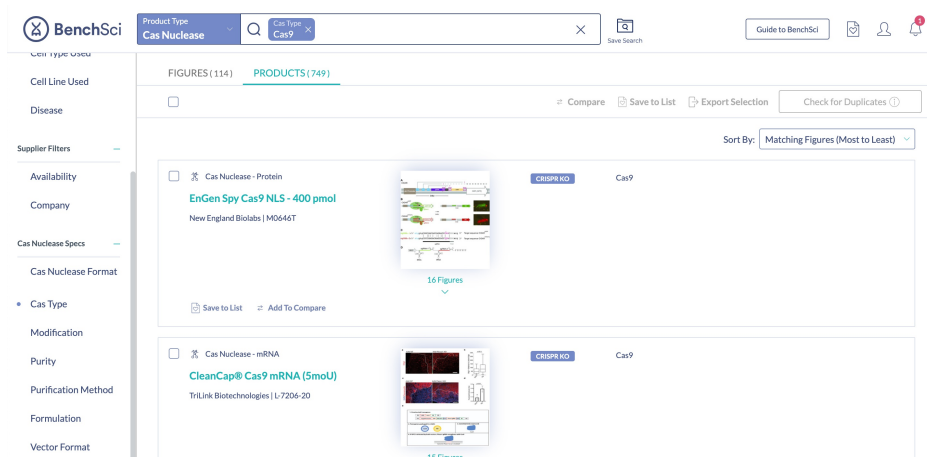

Step six: Apply the Cas Type filter

Because we discovered in the last step that our gRNA was Cas9 compatible, we can immediately filter products for the appropriate nuclease.

Step seven: Review the products and optionally add filters

Review the product results and any associated figures to inform your choice, optionally adding any other filters to further narrow your search.

After that, the science is up to you!

Please check out our **Guide to Filters for CRISPR Reagents** to learn more about our filters!