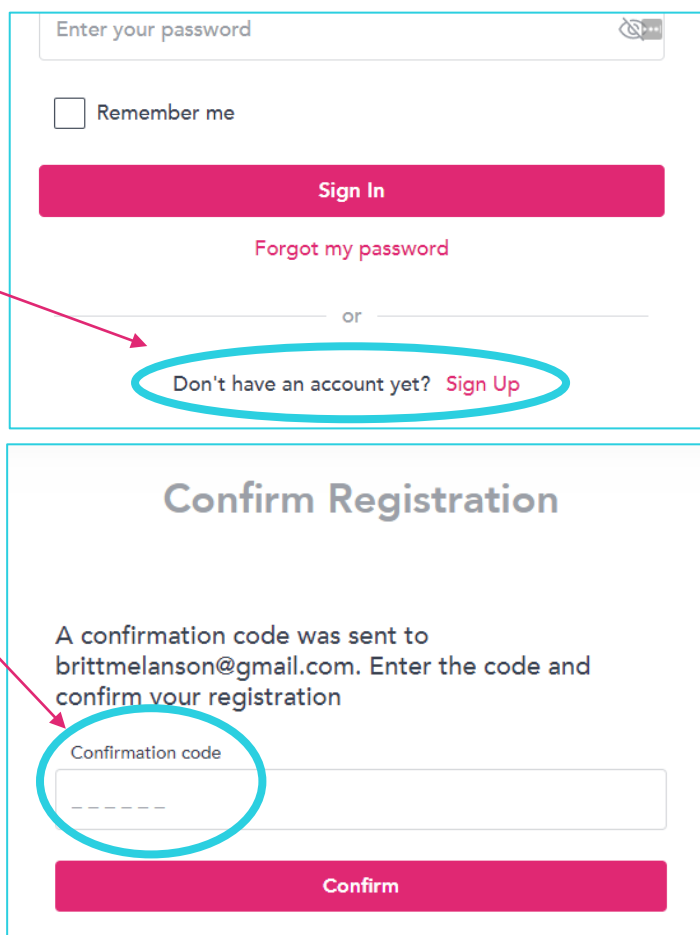



The Vizgen Gene Panel Portal

The Vizgen Gene Panel Portal is the software tool for creating MERFISH gene panels to run on the MERSCOPE™ *in situ* spatial genomics platform. With the Portal you can customize your gene panels with real-time feedback about which genes are most suitable for a MERFISH measurement. This guide navigates you through setting up your account and creating a gene panel. Additionally, it provides you some tips and tricks to follow for designing your gene panel.

Create your Vizgen account

1. Visit portal.vizgen.com to set up your account.
2. Click on **Sign Up** and enter your information into the form on the next screen.
3. Accept the Terms of Use. Then click on **Create Account**.
4. Next you will receive an **email verification** that contains a **confirmation code**. Enter this code on the confirm registration page.
5. The **new account request** will take 2-3 business days to process, so plan ahead to set it up.
6. You will receive an email when your account is activated.
7. Return to portal.vizgen.com and **sign in** with your email address and password.



Enter your password 

☐ Remember me

Sign In

[Forgot my password](#)

or

Don't have an account yet? **Sign Up**

Confirm Registration

A confirmation code was sent to brittmelanson@gmail.com. Enter the code and confirm your registration

Confirmation code

Confirm

Tips and Tricks Before for Designing Your Gene Panel

1. Construct a list of genes you would like in your MERFISH panel prior to running the application. The Vizgen Gene Panel Portal will help refine the list to those most suitable for MERFISH.
2. Include a few unique cell type markers for each of the cell types you would like to distinguish with MERSCOPE.
3. If using Excel to generate your list of genes, check for copy and paste errors, like automatic time and date conversions.
4. When building the panel, you can input the transcript Id, gene Id, gene name, or symbol from the Ensemble database: FOXO1 or ENSMUSG00000044167.7
5. If the tissue you selected isn't a perfect match for your sample, then including the abundance information for each gene will help more accurately calculate the abundance limit for the panel.
6. If you have a large number of genes, consider uploading a .CSV file to make the process easier.
7. Add notes and abundances to genes as separate columns in a .CSV file.

Designing your MERFISH Gene Panel

After logging in, click the **Create New Panel** button in the upper left corner of the Gene Panel Portal homepage. You will be brought to a new screen to start configuring the panel.

vizgen

Create New Panel

Panels

Quotes

4 easy steps:

1. Configure panel



Enter the **required information** including:

- the panel name (40 characters max)
- reference organism
- tissue type
- notes about panel in the comments section

2. Specify genes



Next, you can start adding genes to your MERFISH panel! Enter your gene name into the box or upload a .CSV file with your gene list. An example **.CSV file** is available to download. Click **Add Genes** to verify and populate your gene panel.

Custom Input

Hide ^

Up to 500 genes

Use gene names or Ensembl IDs

Clear All

FOXO1

FOXO3

RAD1

CD1

① Add notes and abundance

↓ Get .csv file example

Add Genes

3. Refine selection

Several **errors may occur** when you add genes. Below explains these errors and **how to address** them to refine your gene panel.



1 gene was not found:

The gene is not in the Ensembl database. Check the gene name and retry.



7 untargetable

The gene contains less than 20 target regions. Please delete gene.



Abundance, FPKM

Total abundance:



13584/9000

Delete some genes or move them to Sequential Panel

Abundance over 9,000 can cause optical crowding that can decrease the detection efficiency. You can move genes to a sequential panel to stay within the total abundance limit of 9,000 FPKM.



6 insufficient target regions

Gene has between 21 and 50 target regions available. The detection of this gene may be compromised, but it can still be included if it is critical.

4. Request quote

Next, finalize your gene panel and request a **quote** for the **panel** and **reagents**! The Vizgen customer care team will contact you to confirm the quote and place the order.

If you have any questions, contact us at info@vizgen.com. Even if you are unsure what reagents you need, still submit the quote and our customer care team will help you out.

