**KEY RESOURCES TABLE**

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| --- | --- | --- |
| **Reagent or Resource** | **Source**  | **Identifier**  |
| **Antibodies**  |
| Anti-phosphorylated-Erk | Cell Signaling | CAT#4370 |
| Anti-total-Erk | Cell Signaling | CAT#4696 |
| Anti-DIG POD | Roche | CAT#11 207 733 910 |
| Cy3 tyramide reagent | Perkin Elmer | CAT#NEL744991KT |
| **Chemicals, Peptides, and Recombinant Proteins** |
| Earle’s Balanced Salt Solution | Worthington | CAT#LS003126 |
| Papain | Worthington | CAT#LS003126 |
| Neurobasal  | ThermoFisher Scientific | CAT#21103049 |
| B27 | ThermoFisher Scientific | CAT#A8806 |
| BSA | NEB | CAT#B9000S |
| TCL Buffer | QIAGEN | CAT#1031576 |
| 1% 2-mercaptoethanol  | Sigma | CAT#63689 |
| Ovomucoid solution | Worthington | CAT#LS003087 |
| Paraformaldehyde | Supplier Polysciences, Inc. | CAT#04018-1 |
| DiD' dye | ThermoFisher Scientific | CAT# D7757 |
| **Deposited Data** |
| Raw data files for single-cell RNA-sequencing | NCBI Gene Expression Omnibus | GSE115427 |
| RNA-FISH Stacks | This paper: stackjoint.com/basic | Search for Tag: “Thyme, 2018” |
| Brain activity maps | This paper: stackjoint.com/zbrain | Search for Tag: “Thyme, 2018” |
| **Experimental Models: Organisms/Strain** |
| Zebrafish: 132 mutant lines | This paper | genepile.com/scz\_gwas108 |
| **Critical Commercial Assays** |
| 10X reagents  | 10X Genomics | Chromium Single Cell 3’v2 Reagent Kits |
| **Software** |
| stackjoint.com, a community resource, where users can upload their own data, explore it, and share it | This paper | stackjoint.com |
| Labview code for tracking larvae and generating high-speed movies | This paper | https://github.com/cbs-ntcore/Schier-Lab |
| All analysis code for behavior and imaging data | This paper | https://github.com/sthyme/ZFSchizophrenia |
| MapMAPPing | (Randlett et al., 2015) | https://github.com/owenrandlett/Z-Brain |
| MATLAB | MathWorks | https://www.mathworks.com/products/matlab.html |
| CMTK | (Jefferis et al., 2007; Rohlfing and Maurer, 2003) | https://www.nitrc.org/projects/cmtk |
| ImageJ | NIH | https://imagej.nih.gov/ij/index.html |
| Cellranger | 10X Genomics | https://support.10xgenomics.com/single-cell-gene-expression/software/ pipelines/latest /what-is-cell-ranger  |
| PCA, clustering, differential expression and  | (Satija et al., 2015) | R library Seurat |
| t-distributed Stochastic Neighbor Embedding | (Hinton and Maaten, 2008) | https://lvdmaaten.github.io/tsne/ |
| Random Forest Classification | (Breiman, 2001; Pandey et al., 2018) | R package Random Forest |
| ANTs | (Marquart et al., 2016) |  |
| UMI based variable gene selection | (Pandey et al., 2018) |  |
| **Other** |  |  |
| Resource website | This paper | stackjoint.com |
| Resource website | This paper | genepile.com |
| 96-well square 0.7 mL plates | E&K Scientific | Cat#2074 |
| Optical adhesive films | ThermoFisher Scientific | Cat#4311971 |
| Grasshopper3 camera | FLIR | Cat#GS3-U3-23S6M-C  |

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