

Scope: Format: Amount: GEO accession:

Series GSE120724

[Query DataSets for GSE120724](#)

| | |
|-------------------|---|
| Status | Public on Apr 14, 2020 |
| Title | Dynamic landscapes and regulome of mRNA structure during zebrafish early embryogenesis |
| Organism | Danio rerio |
| Experiment type | Expression profiling by high throughput sequencing Other |
| Summary | We resolved the RNA secondary structure during zebrafish early embryogenesis based on in vivo click selective 2'-hydroxyl acylation and profiling experiment (icSHAPE). We analyzed the RNA structure dynamics among different development stages. Also, we studied which factors regulate maternal gene decay by RNA structure switch. |
| Overall design | icSHAPE of 12 samples from zebrafish embryos at six different early development stages and 4 samples from Elavl1a deficient zebrafish embryos at sphere and shield stages, including two treated with DMSO as control and two treated with NAIN3 for each stage or condition. RNA-seq of 6 samples from zebrafish embryos at 2, 4, 6 h.p.f. and 4 samples from Elavl1a deficient zebrafish embryos at 4 and 6 h.p.f. including two biological replicates. iCLIP-seq of 4 samples from flag-elavl1a mRNA injected zebrafish embryos at 4 and 6 h.p.f. including two biological replicates. |
| Contributor(s) | Shi B , Zhang J , Heng J , Gong J , Liu F , Zhang QC , Yang Y |
| Citation(s) | Shi B, Zhang J, Heng J, Gong J et al. RNA structural dynamics regulate early embryogenesis through controlling transcriptome fate and function. <i>Genome Biol</i> 2020 May 18;21(1):120. PMID: 32423473 |
| Submission date | Oct 01, 2018 |
| Last update date | Jun 01, 2020 |
| Contact name | Jinsong Zhang |
| E-mail(s) | zhangjs15@mails.tsinghua.edu.cn |
| Organization name | Tsinghua University |
| Department | Life Science |
| Street address | Tsinghua University, Haidian District, Beijing, China |
| City | Beijing |
| State/province | Beijing |
| ZIP/Postal code | 100084 |
| Country | China |
| Platforms (2) | GPL18413 Illumina HiSeq 2500 (Danio rerio) GPL23085 HiSeq X Ten (Danio rerio) |
| Samples (34) | GSM3409376 fertilized egg DMSO_icSHAPE GSM3409377 fertilized egg NAIN3_icSHAPE GSM3409378 1-cell DMSO_icSHAPE GSM3409379 1-cell NAIN3_icSHAPE GSM3409380 4-cell DMSO_icSHAPE GSM3409381 4-cell NAIN3_icSHAPE GSM3409382 2h DMSO_icSHAPE |

[Less...](#)

GSM3409382 2h DMSO_icSHAPE
 GSM3409383 2h NAIN3_icSHAPE
 GSM3409384 sphere DMSO_icSHAPE
 GSM3409385 sphere NAIN3_icSHAPE
 GSM3409386 shield DMSO_icSHAPE
 GSM3409387 shield NAIN3_icSHAPE
 GSM3409390 control 2h rna-seq rep1
 GSM3409391 control 2h rna-seq rep2
 GSM3409392 control 4h rna-seq rep1
 GSM3409393 control 4h rna-seq rep2
 GSM3409394 control 6h rna-seq rep1
 GSM3409395 control 6h rna-seq rep2
 GSM3409396 elavl1a morphant 4h rna-seq rep1
 GSM3409397 elavl1a morphant 4h rna-seq rep2
 GSM3409398 elavl1a morphant 6h rna-seq rep1
 GSM3409399 elavl1a morphant 6h rna-seq rep2
 GSM4157936 sphere Flag-Elavl1a iCLIP rep1
 GSM4157937 sphere Flag-Elavl1a iCLIP rep2
 GSM4157938 shield Flag-Elavl1a iCLIP rep1
 GSM4157939 shield Flag-Elavl1a iCLIP rep2
 GSM4473285 Sphere_Elavl1a_MO_DMSO.rep1
 GSM4473286 Sphere_Elavl1a_MO_DMSO.rep2
 GSM4473287 Sphere_Elavl1a_MO_NAIN3.rep1
 GSM4473288 Sphere_Elavl1a_MO_NAIN3.rep2
 GSM4473289 Shield_Elavl1a_MO_DMSO.rep1
 GSM4473290 Shield_Elavl1a_MO_DMSO.rep2
 GSM4473291 Shield_Elavl1a_MO_NAIN3.rep1
 GSM4473292 Shield_Elavl1a_MO_NAIN3.rep2

Relations

BioProject [PRJNA494251](#)
 SRA [SRP163087](#)

Download family

[SOFT formatted family file\(s\)](#)
[MINiML formatted family file\(s\)](#)
[Series Matrix File\(s\)](#)

Format

SOFT [?](#)
 MINiML [?](#)
 TXT [?](#)

| Supplementary file | Size | Download | File type/resource |
|--|---------|---|--------------------|
| GSE120724_1-cell.icshape.out.txt.gz | 15.9 Mb | (ftp) (http) | TXT |
| GSE120724_2h.icshape.out.txt.gz | 17.7 Mb | (ftp) (http) | TXT |
| GSE120724_4-cell.icshape.out.txt.gz | 15.5 Mb | (ftp) (http) | TXT |
| GSE120724_RAW.tar | 16.9 Mb | (http) (custom) | TAR (of BED, TXT) |
| GSE120724_fertilized_egg.icshape.out.txt.gz | 14.2 Mb | (ftp) (http) | TXT |
| GSE120724_shield-elavl1a-mo.icshape.out.txt.gz | 10.5 Mb | (ftp) (http) | TXT |
| GSE120724_shield.icshape.out.txt.gz | 14.6 Mb | (ftp) (http) | TXT |
| GSE120724_sphere-elavl1a-mo.icshape.out.txt.gz | 13.8 Mb | (ftp) (http) | TXT |
| GSE120724_sphere.icshape.out.txt.gz | 22.5 Mb | (ftp) (http) | TXT |

[SRA Run Selector](#) [?](#)

Raw data are available in SRA

Processed data are available on Series record

