

GENE-SWitCH

The regulatory GENomE of SWine and CHicken: functional annotation during development

Protocol WP1 T1.4 Pooling of total RNAs for Iso-seq

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1 Summary

GENE-SWitCH aims at identifying functional elements located in the genomes of pig and chicken working on seven different tissues at three different developmental stages. It requires a collection of samples corresponding to the selected tissues and developmental stages with associated metadata describing accurately the samples and the sampling process.

The seven tissues analysed in GENE-SWitCH are:

- Cerebellum
- Lung
- Kidney
- Dorsal skin
- Small intestine
- Liver
- Skeletal muscle

The three developmental stages are:

- Early organogenesis (E8 chick embryo and D30 pig foetuses)
- Late organogenesis (E15 chick embryo and D70 pig foetuses)
- Newborn piglets and hatched chicks

To increase the quantity of available material for Iso-seq, we decided to pool total RNAs for each tissue at a defined developmental stage. We finally produced 21 pools, for each of the 7 tissues at the 3 different stages of development.

2 Protocol description

Working on ice, total RNAs extracted from each sample were pooled according to the following table:

	Liver	Small intestine	Lungs	Hindlimb muscle	Kidney	Cerebellum	Back skin
D30 fetus	SAMEA7629259 SAMEA7629266 SAMEA7629273 SAMEA7629280	SAMEA7629260 SAMEA7629267 SAMEA7629274 SAMEA7629281	SAMEA7629261 SAMEA7629268 SAMEA7629275 SAMEA7629282	SAMEA7629262 SAMEA7629269 SAMEA7629276 SAMEA7629283	SAMEA7629263 SAMEA7629270 SAMEA7629277 SAMEA7629284	SAMEA7629264 SAMEA7629271 SAMEA7629278 SAMEA7629285	SAMEA7629265 SAMEA7629272 SAMEA7629279 SAMEA7629286
D70 fetus	SAMEA7629003 SAMEA7629004 SAMEA7629005 SAMEA7629006	SAMEA7629007 SAMEA7629008 SAMEA7629009 SAMEA7629010	SAMEA7629011 SAMEA7629012 SAMEA7629013 SAMEA7629014	SAMEA7629015 SAMEA7629016 SAMEA7629017 SAMEA7629018	SAMEA7629019 SAMEA7629020 SAMEA7629021 SAMEA7629022	SAMEA7629023 SAMEA7629024 SAMEA7629025 SAMEA7629026	SAMEA7629027 SAMEA7629028 SAMEA7629029 SAMEA7629030
Newborn	SAMEA7629031 SAMEA7629032 SAMEA7629033 SAMEA7629034	SAMEA7629035 SAMEA7629036 SAMEA7629037 SAMEA7629038	SAMEA7629039 SAMEA7629040 SAMEA7629041 SAMEA7629042	SAMEA7629043 SAMEA7629044 SAMEA7629045 SAMEA7629046	SAMEA7629047 SAMEA7629048 SAMEA7629049 SAMEA7629050	SAMEA7629051 SAMEA7629052 SAMEA7629053 SAMEA7629054	SAMEA7629055 SAMEA7629056 SAMEA7629057 SAMEA7629058

The Biosamples IDs (<https://www.ebi.ac.uk/biosamples/>) correspond to the metadata of the samples used in each pool.

Samples are finally stored into a cryotube storage box at -80°C.