

# A landscape of X-inactivation during human T-cell development in the thymus

**SND-ID:** 2022-112-1. **Version:** 2. **DOI:** <https://doi.org/10.5878/ayae-p143>

## Associated documentation

EPIC\_methylation\_meta.tsv (2.66 KB)

md5sums-2022-112-v2.txt (101.05 KB)

Patient characteristics meta.tsv (580 bytes)

RNaseq\_bulk\_meta.tsv (6.32 KB)

RNaseq\_smartseq2\_meta.tsv (76.61 KB)

WES\_meta.tsv (592 bytes)

## Citation

Ekwall, O. (2024) A landscape of X-inactivation during human T-cell development in the thymus (Version 2) [Data set]. University of Gothenburg. Available at: <https://doi.org/10.5878/ayae-p143>

## Creator/Principal investigator(s)

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## Research principal

[University of Gothenburg](#) - Institute of Clinical Sciences

## Description

The aim of the study was to investigate X-inactivation during human T-cell development in the thymus. Thymocytes from six different developmental stages from nine individuals were isolated and studied regarding gene expression. The data set contains data from RNA sequencing, DNA methylation and whole exome sequencing.

The dataset contains data from the manuscript "A landscape of X-inactivation during human T-cell development in the thymus" by Gylemo et al, and consists of results from RNA sequencing (fastq.gz), analysis of DNA methylation (Grn.idat), Smart-seq2 single-cell RNA sequencing (fastq.gz) and whole exome DNA sequencing (fastq.gz) of six developmental stages of thymocytes from nine individuals.

The data is described on individual and cell-type level in the tab-separated metadata files (.tsv). MD5 checksums for each file are included.

## Data contains personal data

Yes

## Sensitive personal data

Yes

## Type of personal data

Human data. The data is pseudonymized and contains ID-numbers that can be coupled to individuals through a code key.

**Code key exists**

Yes

**Language**

[English](#)

**Unit of analysis**

[Cells](#)

**Population**

Isolated thymocytes from nine persons were studied, four boys and five girls, all under 3 years that underwent cardiac surgery for correction of congenital heart defects.

**Study design**

Experimental study

**Sampling procedure**

[Other](#)

**Biobank is connected to the study**

The study has collected samples/material which are stored in a scientific collection or biobank

Scientific collection or biobank name: Biobank Väst 890

Type(s) of sample: Isolerade thymocyter

This study has used existing samples from a scientific collection or biobank

**Number of individuals/objects**

9

**Data format / data structure**

[Numeric](#)

[Text](#)

**Geographic spread**

Geographic location: [Sweden](#)

**Responsible department/unit**

Institute of Clinical Sciences

**Other research principals**

[Linköping University](#)

**Contributor(s)**

Colm E Nestor - Linköping University, Department of Biomedical and Clinical Sciences, Division of Children's and Women's Health

## Funding 1

- Funding agency: Swedish Research Council
- Funding agency's reference number: 2018-02752
- Project name on the application: Clinical and experimental studies of tolerance mechanisms in the thymus aiming at the development of therapeutic targeting of the thymus in the treatment of autoimmune diseases

## Funding 2

- Funding agency: The ALF agreement: The Swedish state under the ALF agreement between the Swedish government and the county councils
- Funding agency's reference number: ALFGBG-965795
- Project name on the application: Kliniska och experimentella studier av toleransmekanismer i thymus

## Ethics Review

Gothenburg - Ref. 217-12

Project title: Studies of central tolerance induction in human thymus

## Research area

[Immunology in the medical area](#) (Standard för svensk indelning av forskningsämnen 2011)

## Keywords

[Hemic and immune systems](#), [Immune system](#), [Cardiovascular surgical procedures](#), [T-lymphocytes](#), [Thymus gland](#), [Thymocytes](#)

## Publications

Björn Gylemo, Maike Bensberg, Viktoria Hennings, Christina Lundqvist, , Alessandro Camponeschi, Dora Goldman, Aida Selimović, Antonio Lentini, Olov Ekwall, Colm E. Nestor (2024). A landscape of X-inactivation during human T-cell development [manuscript, resubmitted after revision].

## Accessibility level

Access to data through SND

Access to data is restricted

## Use of data

[Things to consider when using data shared through SND](#)

## Versions

Version 2. 2024-10-03

[Version 1](#). 2022-09-06

## Homepage

[Team Thymus](#)

## Download metadata

[DataCite](#)

[DDI 2.5](#)

[DDI 3.3](#)

[DCAT-AP-SE 2.0](#)

[JSON-LD](#)

[PDF](#)

[Citation \(CSL\)](#)

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