

TMT proteomics of erythroblasts from healthy donors and erythroblasts/ring sideroblasts from MDS-RS patients

SND-ID: 2023-118-1. **Version:** 1. **DOI:** <https://doi.org/10.48723/f2xa-4005>

Associated documentation

Readme for Processed data.xlsx file.txt (1.07 KB)

Readme for raw data .zip file.txt (562 bytes)

Citation

Moura, P. L., & Hellström-Lindberg, E. (2023) TMT proteomics of erythroblasts from healthy donors and erythroblasts/ring sideroblasts from MDS-RS patients (Version 1) [Data set]. Karolinska Institutet. Available at: <https://doi.org/10.48723/f2xa-4005>

Creator/Principal investigator(s)

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Research principal

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Description

This dataset consists of semi-quantitative 10-plex TMT proteomics analysis of FACS-separated bone marrow cells obtained from 3 healthy bone marrow donors and 3 MDS-RS patients. The objective of this data collection was to assess several parameters on how the bone marrow of MDS-RS patients differs from that of healthy donors. The samples included in this analyses were 3 samples of sorted GPA+ erythroblasts pooled from 5 healthy donors (2+2+1) and 3 samples of sorted GPA+ erythroblasts plus 3 samples of purified ring sideroblasts from 3 MDS-RS patients.

This dataset includes the raw mass spectra, QC and processed results.

Processing: In short, FACS-separated samples were snap frozen in liquid nitrogen. Cell pellets were lysed with 4 % SDS lysis buffer and prepared for mass spectrometry using a modified version of the SP3 protein clean up and digestion protocol published by Moggridge S. et al 2018.

The following files are included in the dataset:

- Processed data and analysis.xlsx (2.63 MB)
- Variable_list_Processed_data_and_analysis.xlsx (23 KB)
- Readme for raw data .zip file.txt (562 bytes)
- Readme for Processed data.xlsx file (1.07 KB)
- 13553_STD_EAEHPM1_10_TMT10_HiRIEF_3-10pH_20210504_07.15.zip (7.68 GB)

Data contains personal data

Yes

Sensitive personal data

Yes

Type of personal data

Genetic and biological data of patients

Code key exists

Yes

Language

[English](#)

Unit of analysis

[Cells](#)

Population

Patients with Myelodysplastic neoplasms with ring sideroblasts (MDS-RS) and healthy donors

Study design

Preclinical study

Sampling procedure

[Probability: Simple random](#)

[Non-probability: Availability](#)

[Mixed probability and non-probability](#)

Bone marrow (BM) and/or peripheral blood (PB) samples were collected from 36 MDS-RS and 3 MDS non-RS patients evaluated at Karolinska University Hospital, Huddinge, Sweden. Diagnostic procedures were performed according to the European LeukemiaNet recommendation and WHO classification for myeloid neoplasms. As the specific purpose was to dissect the pathobiology of SF3B1-mutant MDS-RS, all MDS-RS patients belonged to the SF3B1 α category in the IPSS-M risk classification. RS presence was quantified according to standard clinical practice. Additional samples were collected from a total of 40 healthy normal bone marrow (NBM) donors for control purposes. Please note that a deidentified donor and experiment index is provided in the companion publication for this dataset, including clinical and mutational status. All source material was provided with written informed consent for research use, given in accordance with the Declaration of Helsinki.

In this dataset, samples from 3 MDS-RS patients and 3 healthy donors are included.

Biobank is connected to the study

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

Scientific collection or biobank name: Karolinska Institutet MDS biobank

Type(s) of sample: Bone marrow cells

Data format / data structure

[Numeric](#)

[Other](#)

Responsible department/unit

Department of Medicine, Huddinge / Center for Hematology and Regenerative Medicine (HERM)

Funding 1

- Funding agency: Swedish Cancer Society
- Funding agency's reference number: 19 0200

Funding 2

- Funding agency: Swedish Cancer Society
- Funding agency's reference number: 21 0340

Funding 3

- Funding agency: Swedish Research Council
- Funding agency's reference number: 211133

Funding 4

- Funding agency: Knut and Alice Wallenberg Foundation
- Funding agency's reference number: 2017.0359

Ethics Review

Stockholm - Ref. 2017/1090-31/4

Research area

[Natural sciences](#) (Standard för svensk indelning av forskningsämnen 2011)

[Biological sciences](#) (Standard för svensk indelning av forskningsämnen 2011)

[Cell biology](#) (Standard för svensk indelning av forskningsämnen 2011)

[Genetics](#) (Standard för svensk indelning av forskningsämnen 2011)

[Bioinformatics and systems biology](#) (Standard för svensk indelning av forskningsämnen 2011)

[Hematology](#) (Standard för svensk indelning av forskningsämnen 2011)

Keywords

[Myelodysplastic syndromes](#), [Myelodysplastic syndromes](#), [Mds-rs](#), [Sf3b1](#)

Publications

Moura PL, Mortera Blanco T, Hofman IJ, Todisco G, Kretzschmar WW, Björklund AC, Creignou M, Hagemann-Jensen M, Ziegenhain C, Cabrerizo Granados D, Barbosa I, Walldin G, Jansson M, Ashley N, Mead AJ, Lundin V, Dimitriou M, Yoshizato T, Woll PS, Ogawa S, Sandberg R, Jacobsen SW, Hellström-Lindberg E. Erythroid differentiation enhances RNA mis-splicing in SF3B1-mutant myelodysplastic syndromes with ring sideroblasts. Cancer Res. 2023 Nov 3. doi: 10.1158/0008-5472.CAN-23-3038.

DOI: <https://doi.org/10.1158/0008-5472.CAN-23-3038>

Accessibility level

Access to data through SND

Access to data is restricted

Use of data

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

License

[CC BY-NC-ND 4.0](#)

Versions

Version 1. 2023-10-19

Contact for questions about the data

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Download metadata

[DataCite](#)

[DDI 2.5](#)

[DDI 3.3](#)

[DCAT-AP-SE 2.0](#)

[JSON-LD](#)

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[Citation \(CSL\)](#)

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