Mar 15, 2024

Iso-Seq mapping to L1HS/PA2 consensus sequence

DOI
dx.doi.org/10.17504/protocols.io.5qpvorw7dv4o/v1

Raquel Garza[1]

[1]Laboratory of Molecular Neurogenetics, Department of Experimental Medical Science, Wallenberg Neuroscience Center and Lund Stem Cell Center, BMC A11, Lund University, 221 84 Lund, Sweden.

Raquel Garza
Lund University

DOI: https://dx.doi.org/10.17504/protocols.io.5qpvorw7dv4o/v1

Protocol Citation: Raquel Garza 2024. Iso-Seq mapping to L1HS/PA2 consensus sequence. **protocols.io https://dx.doi.org/10.17504/protocols.io.5qpvorw7dv4o/v1**

Protocol status: Working
We use this protocol and it's working

Created: March 03, 2023

Last Modified: May 31, 2024

Protocol Integer ID: 78064

Keywords: ASAPCRN, pa2 consensus sequence, pa2 consensus sequence the protocol, seq mapping to l1h, seq mapping, consensus sequence, seq, read, protocol, iso, l1h, hifi

Funders Acknowledgements:
Aligning Science Across Parkinson's through the Michael J. Fox Foundation for Parkinson's Research
Grant ID: ASAP-000520
Swedish Research Council
Grant ID: 2018-02694
Swedish Brain Foundation
Grant ID: FO2019-0098
Cancerfonden
Grant ID: 190326
Barncancerfonden
Grant ID: PR2017-0053
NIHR Cambridge Biomedical Research Centre
Grant ID: NIHR203312
Swedish Society for Medical Research
Grant ID: S19-0100
National Institutes of Health
Grant ID: HG002385
Swedish Research Council
Grant ID: 2021-03494
Swedish Research Council
Grant ID: 2020-01660

Abstract

The protocol describes the steps to map HiFi reads to a consensus sequence and retrieve density plots

Troubleshooting

Mapping to L1HS/PA2 consensus sequence

1 A L1HS and L1PA2 consensus sequence was used to create a minimap2 (version 2.24; RRID:SCR_018550) index

Command

L1 consensus index minimap2

L1 consensus index minimap2

```
minimap2 -d L1consensus.mmi L1consensus.fa
```

to map FLNC reads (HiFi reads).

2 The density of mapped reads was visualized in the Integrative Genomics Viewer (IgV) (version 2.12.3; RRID:SCR_011793)

3 The number of mapped reads in the L1s 5′ UTR was retrieved using samtools view (-c) (version 1.9; RRID:SCR_002105), specifying the first 900 bp of the consensus sequence as the coordinates of interest.