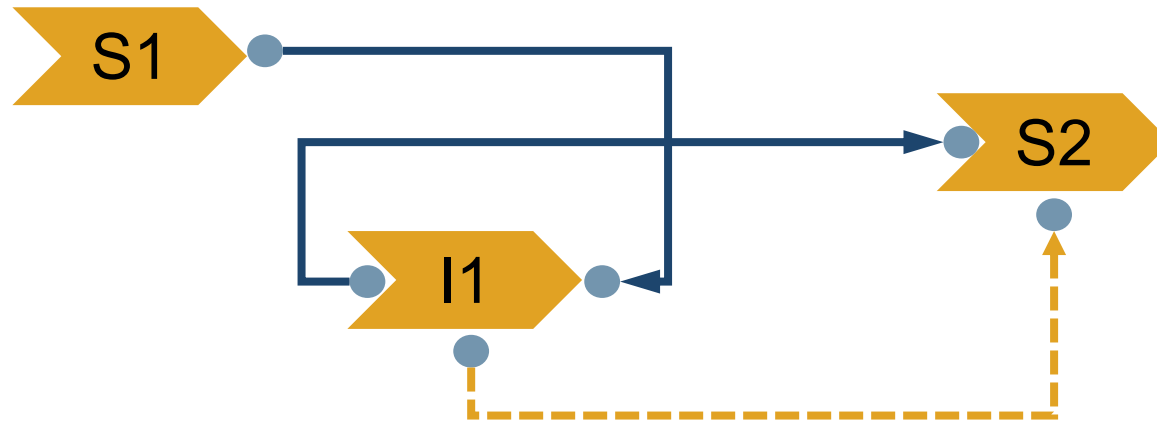# **Supplementary File 2**
One-variant images of CSVs detected by SVision in HG00733

Note:

- CSVs are grouped based on their graph ID. For CSVs belonging a certain graph, the diagram of the graph is first shown, following by complex events.

- Each CSV is named as *chrom-start-end.*

- The *y*-axis of the denoised image is the read used by SVision for discovery, and the *x*-axis is the reference sequence.
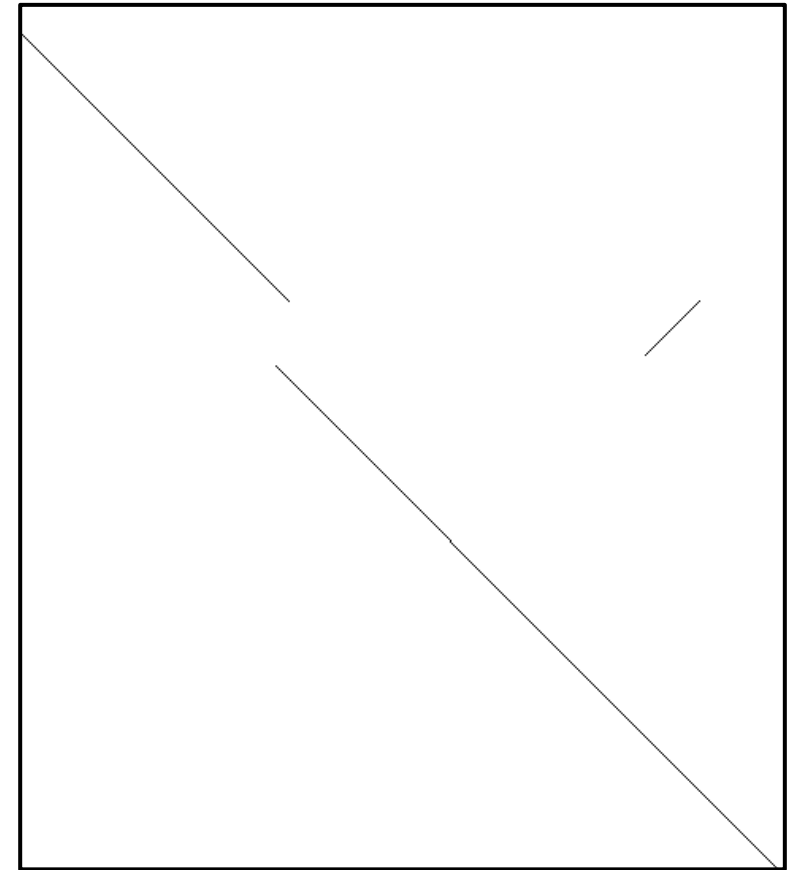
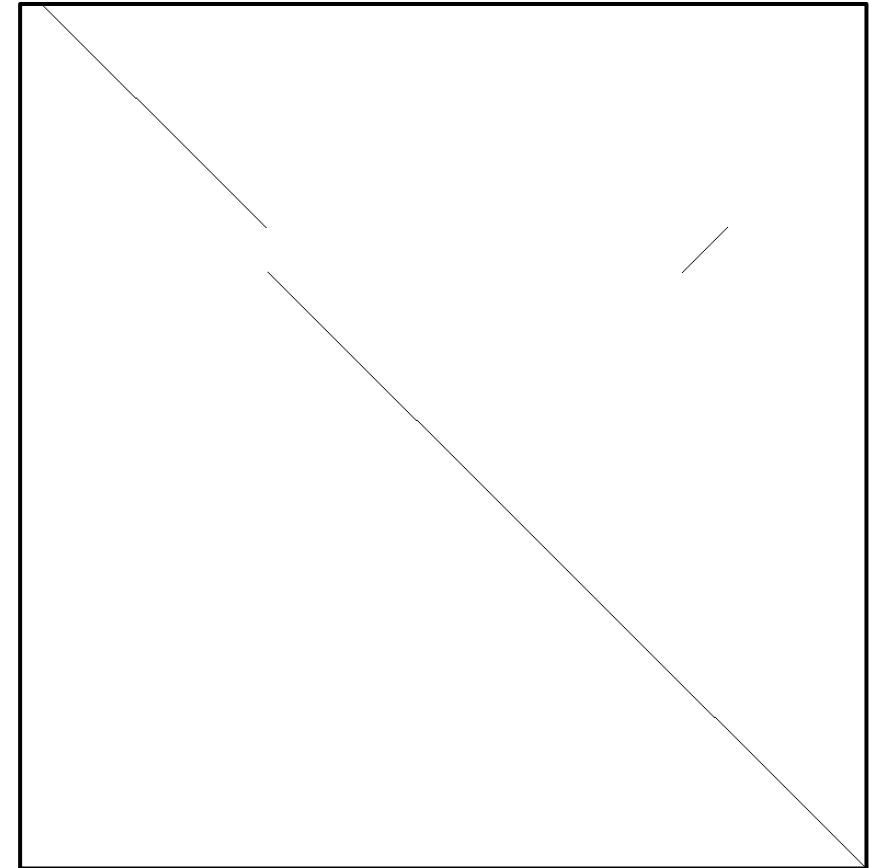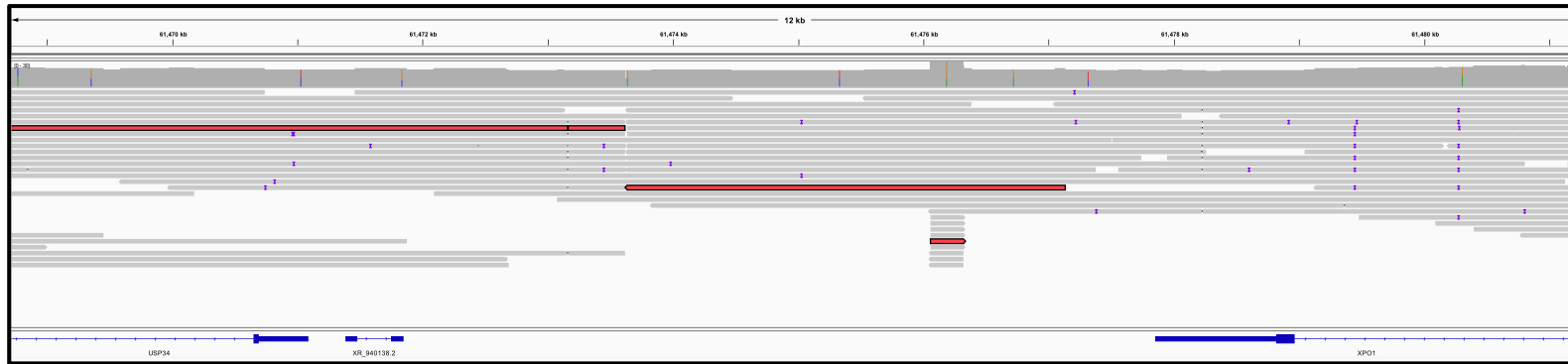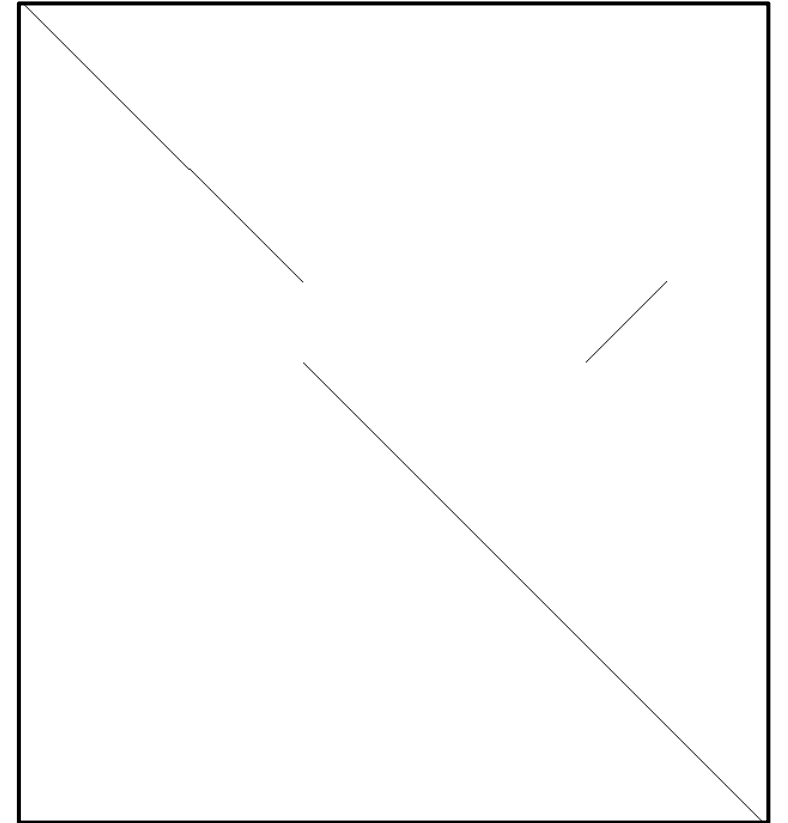# GraphID-12, Inverted duplication
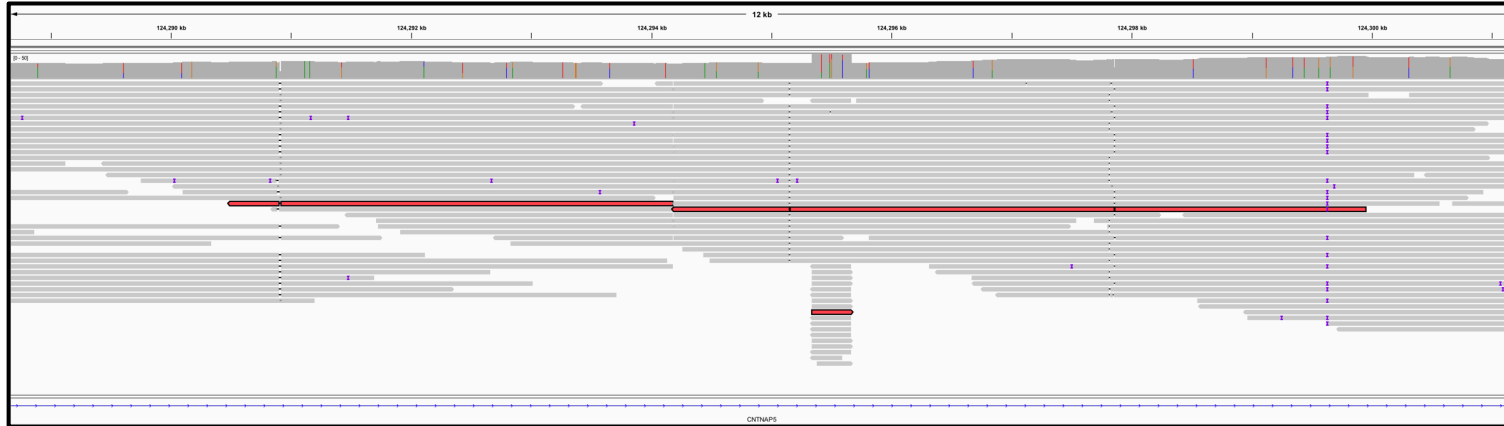

Nodes=S:2,I:1,D:1

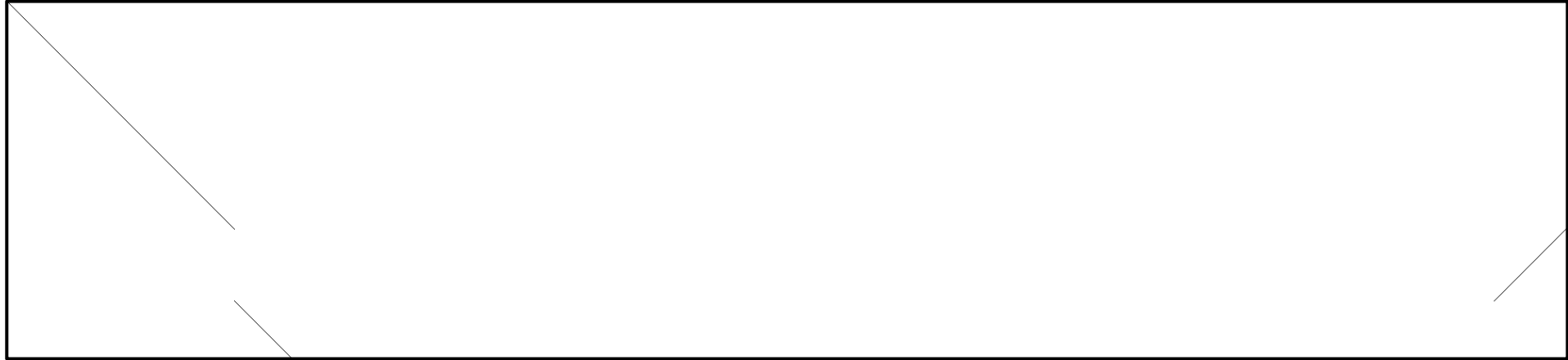# ❖ chr1-81194666-81195870
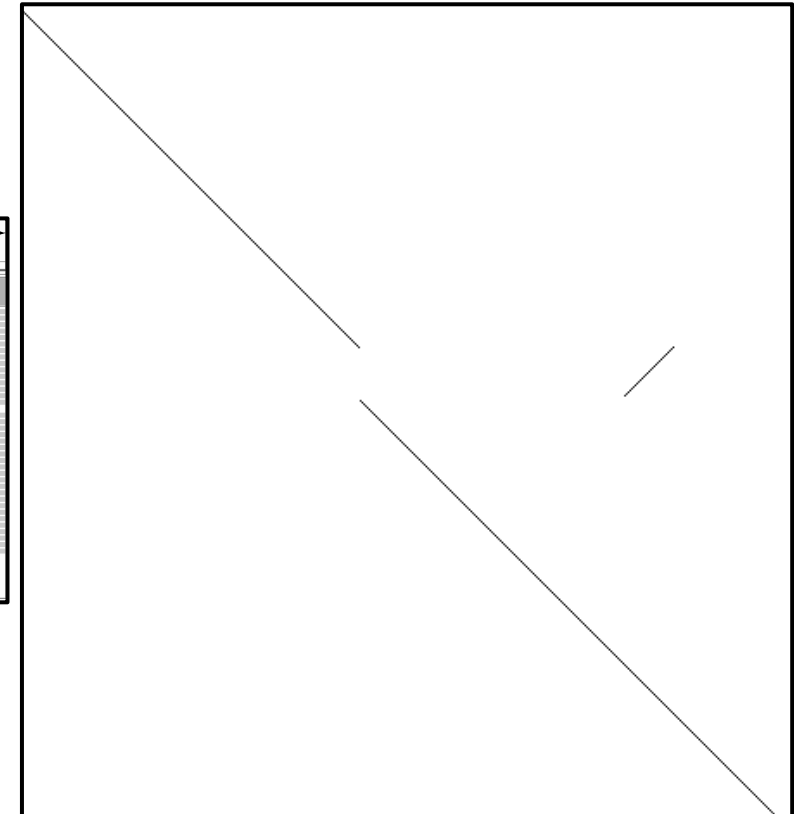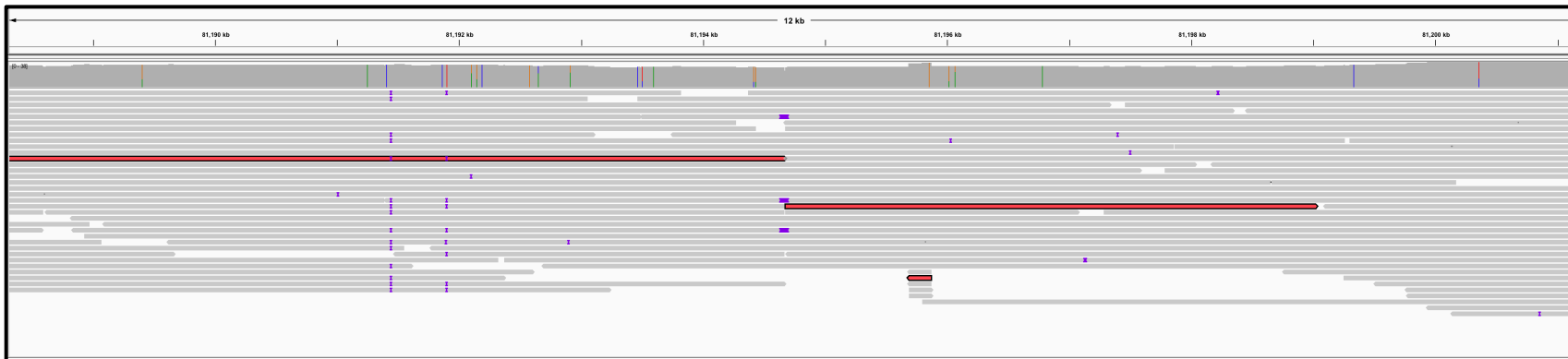
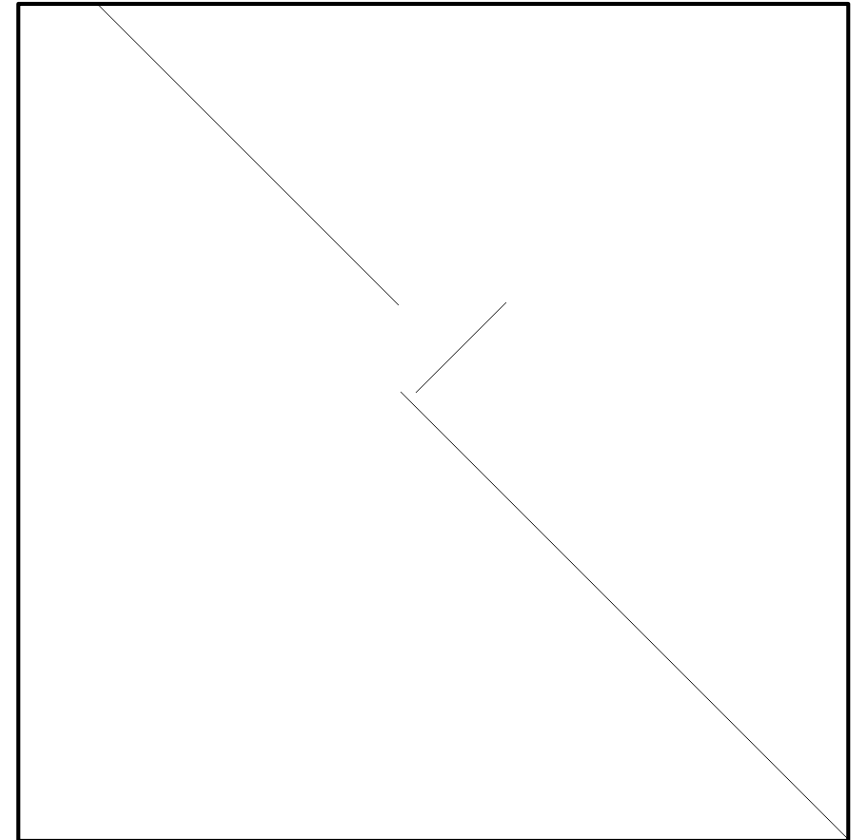**❖ chr1-175231433-175232798**

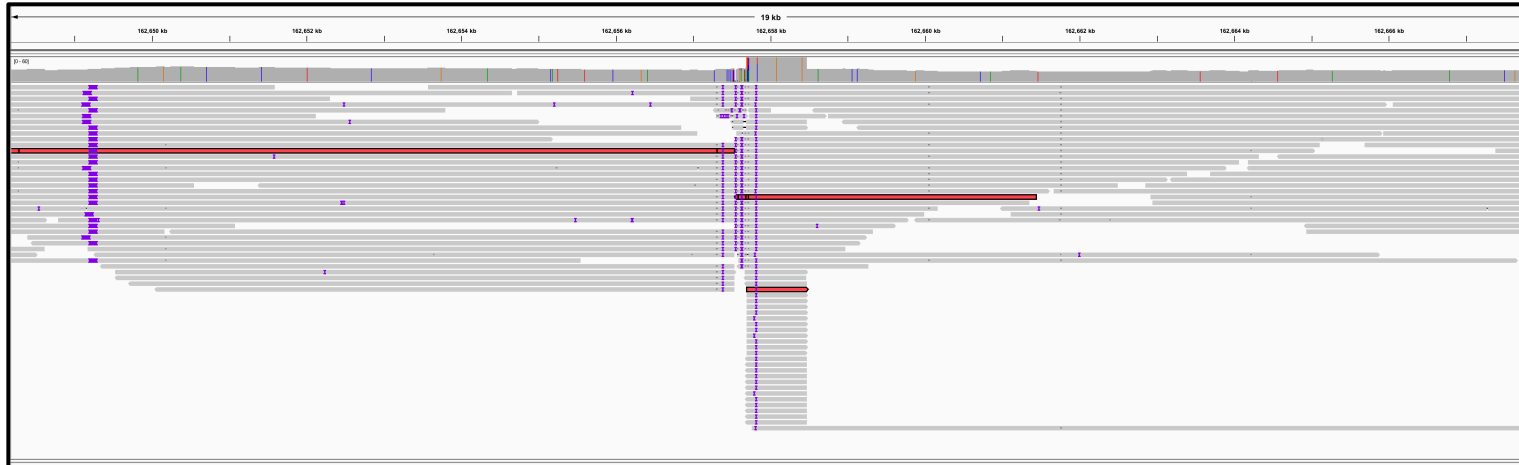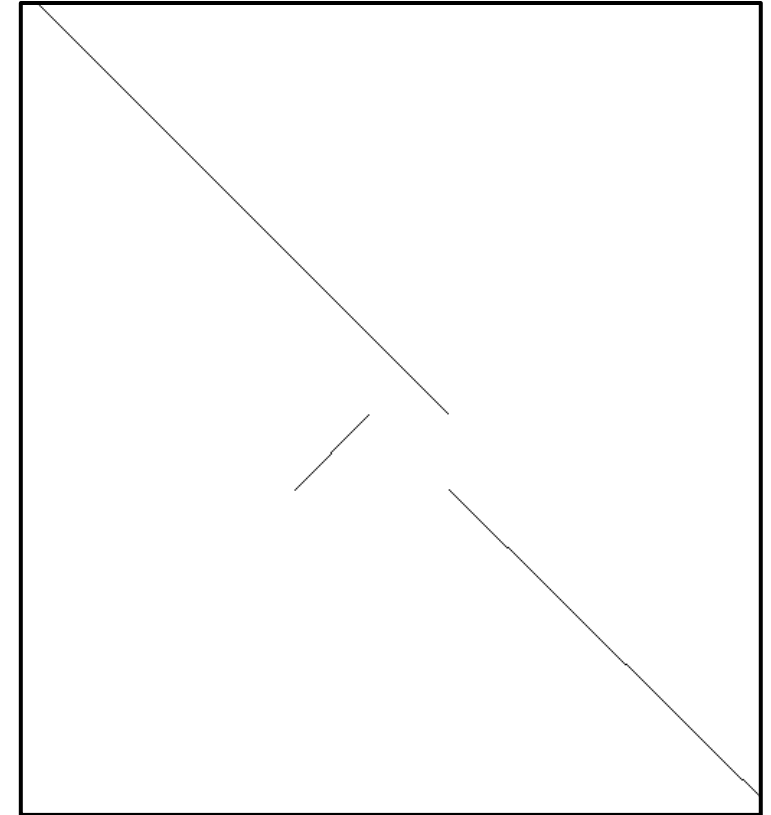## ❖ chr2-61473618-61476320

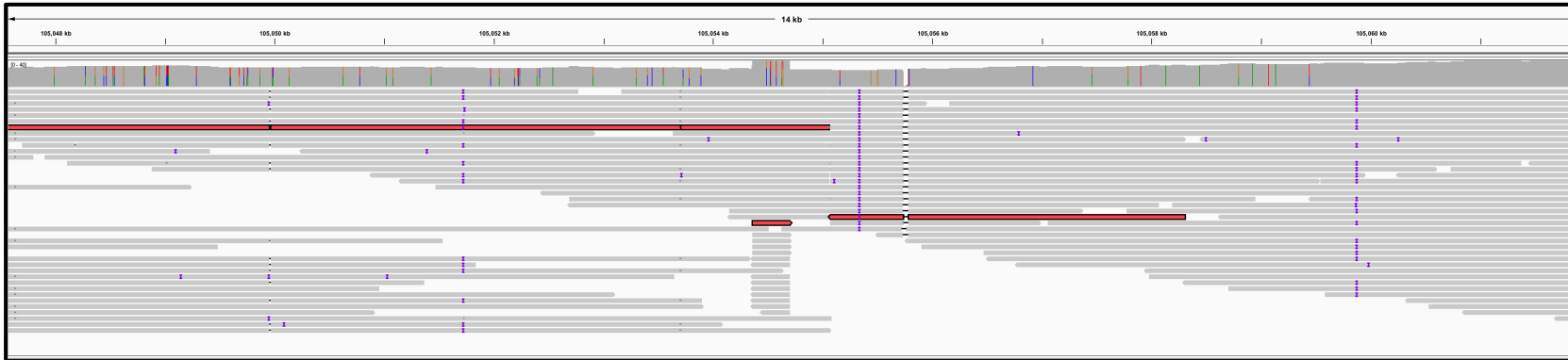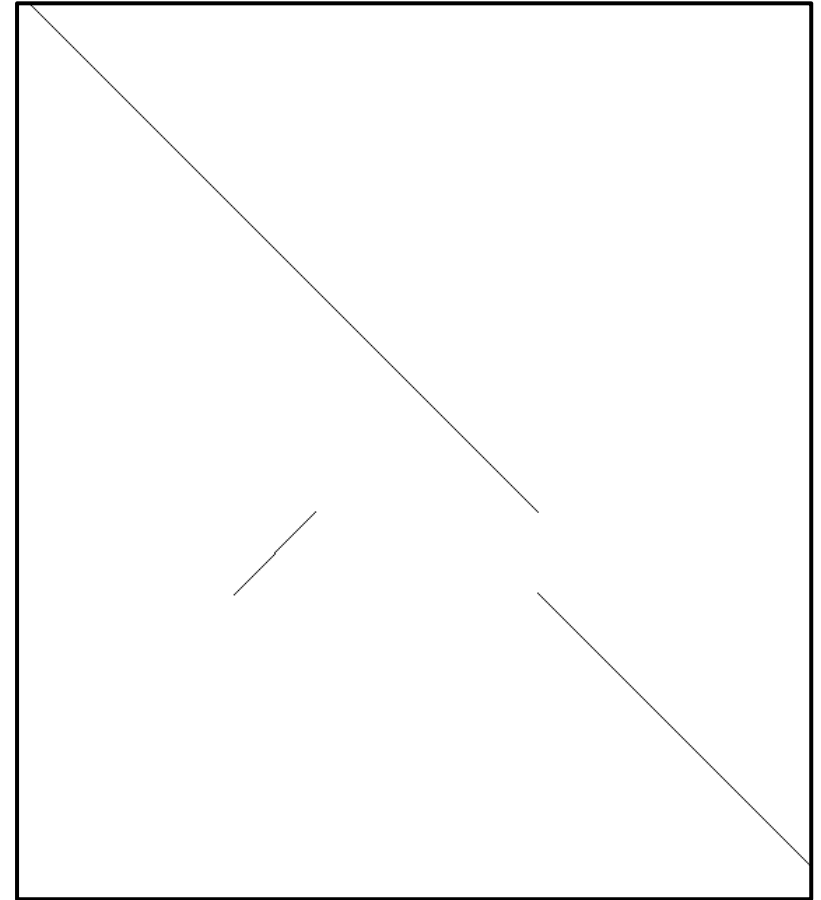# ❖ chr2-124294179-124295658

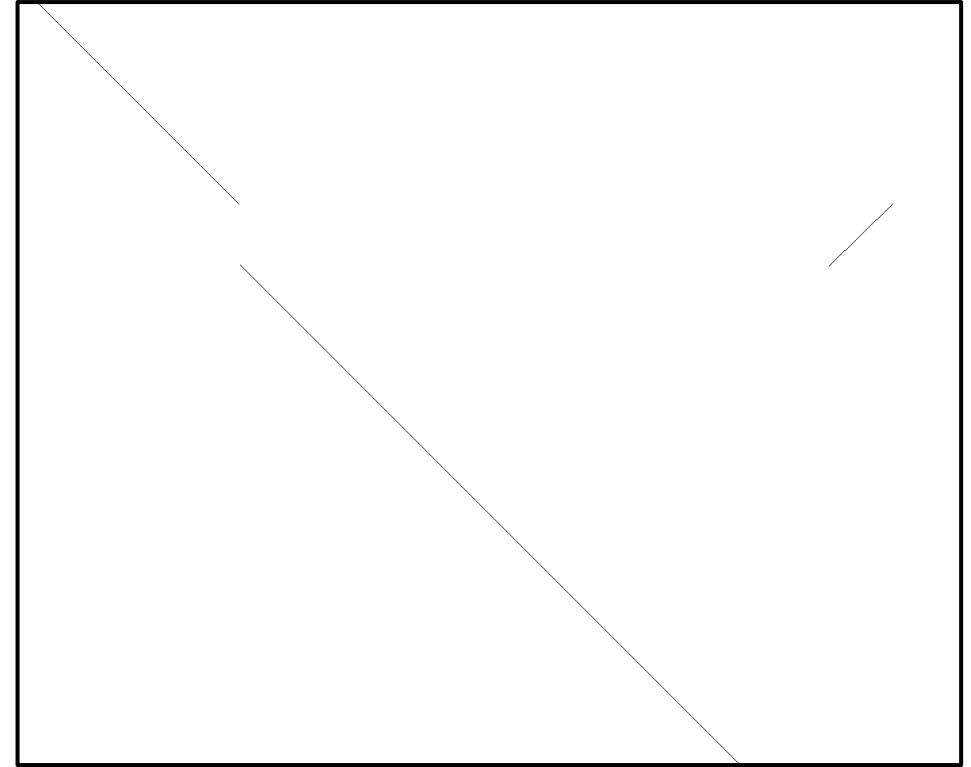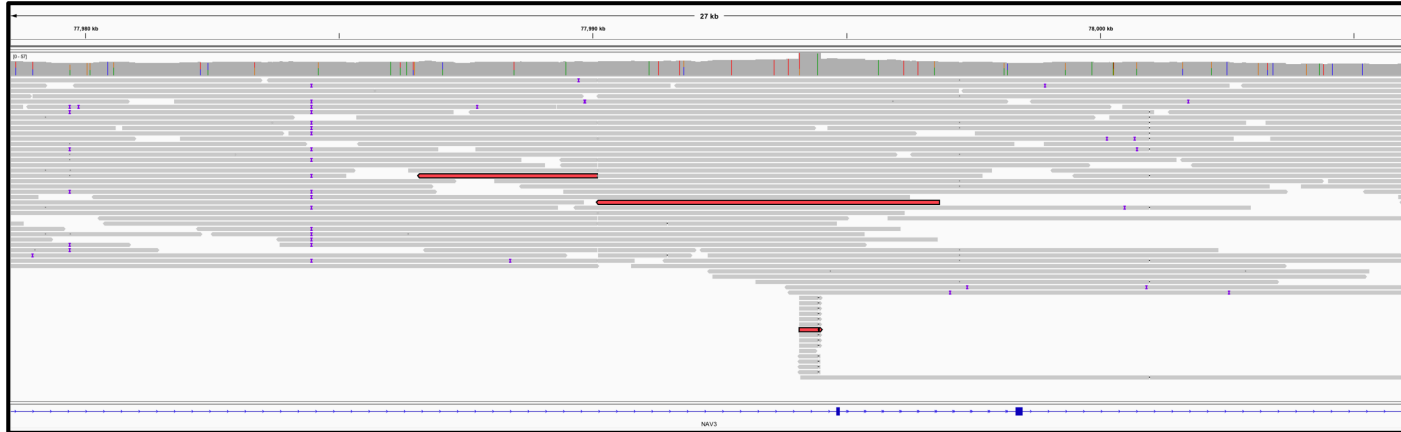# ❖ chr4-69220529-69274512

Supplementary File 2

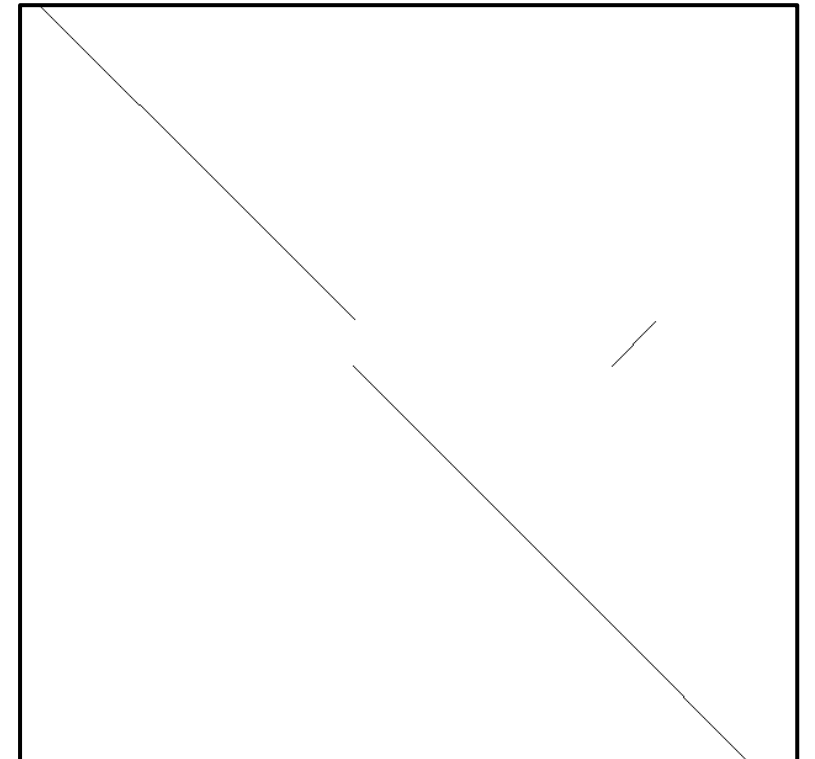# ❖ chr4-162657531-162658465

❖ chr9-105054361-105055065

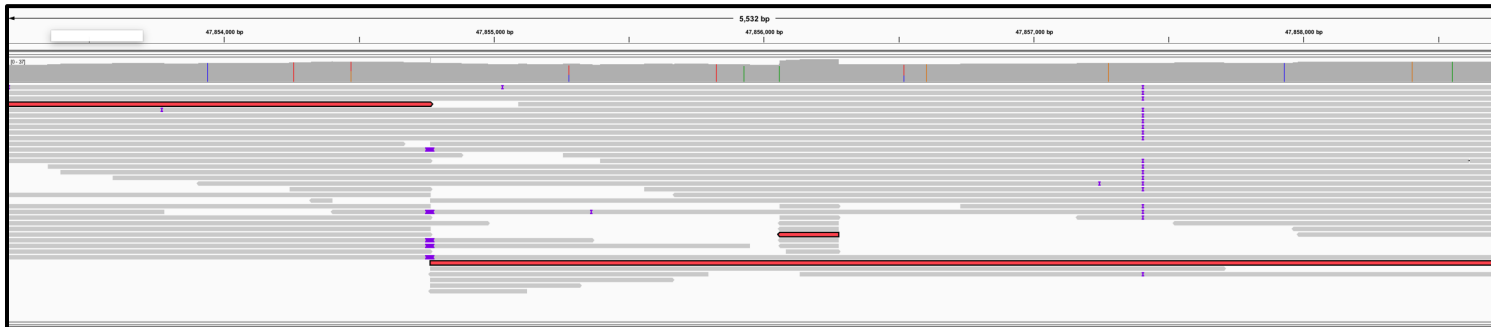# ❖ chr12-71315487-71316538

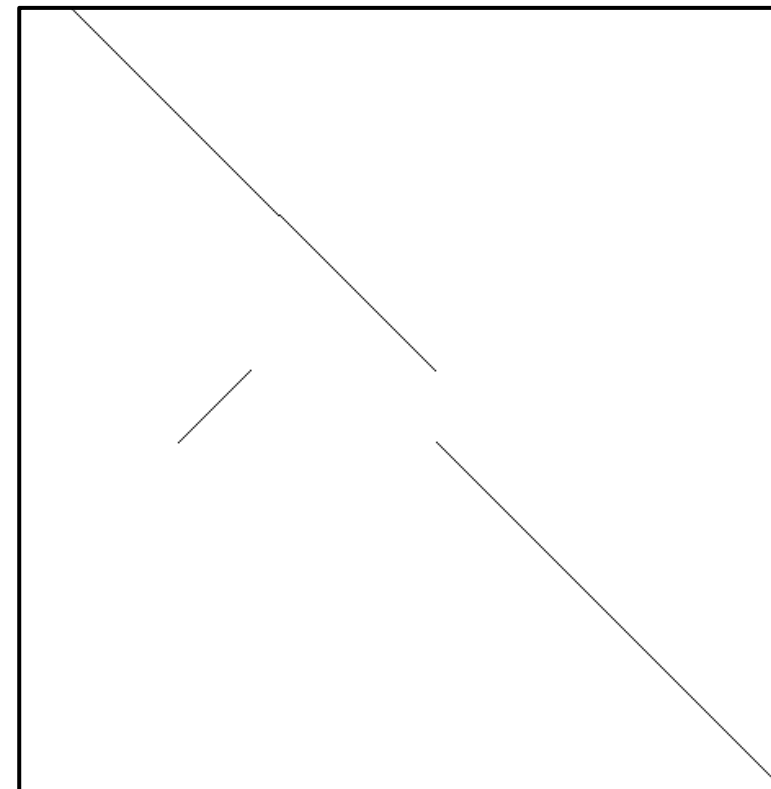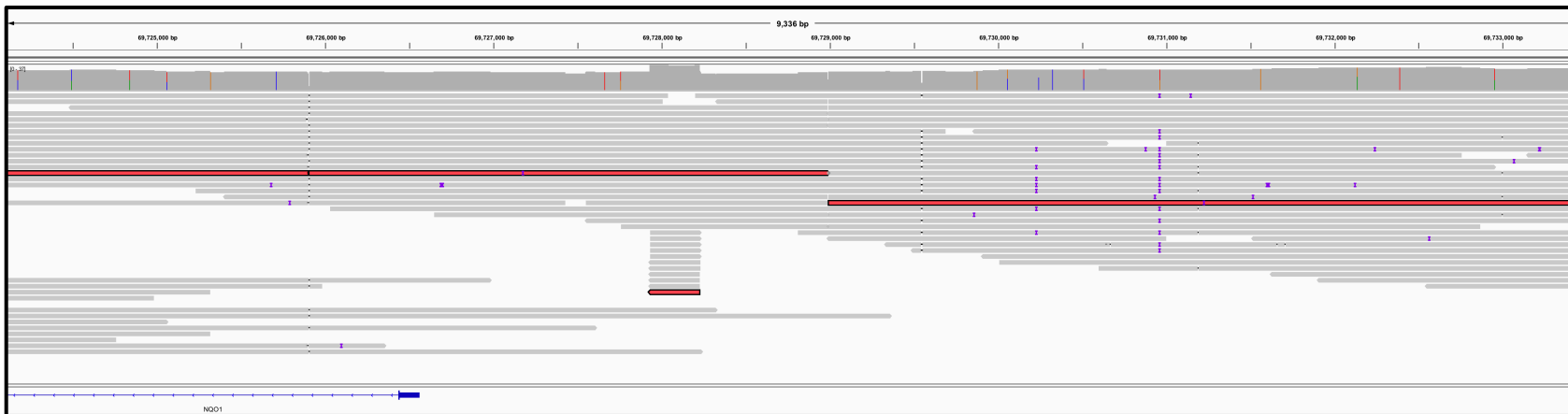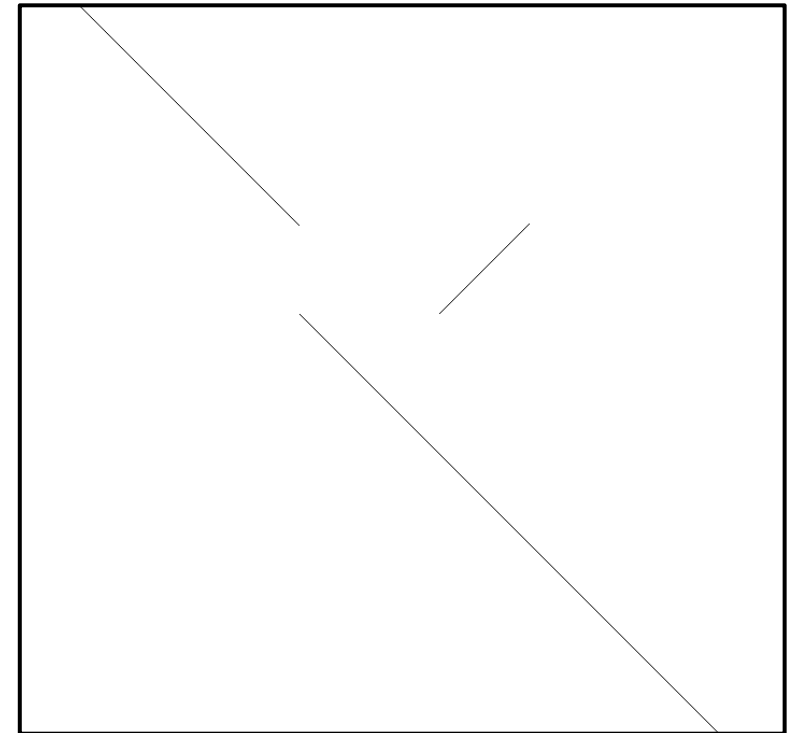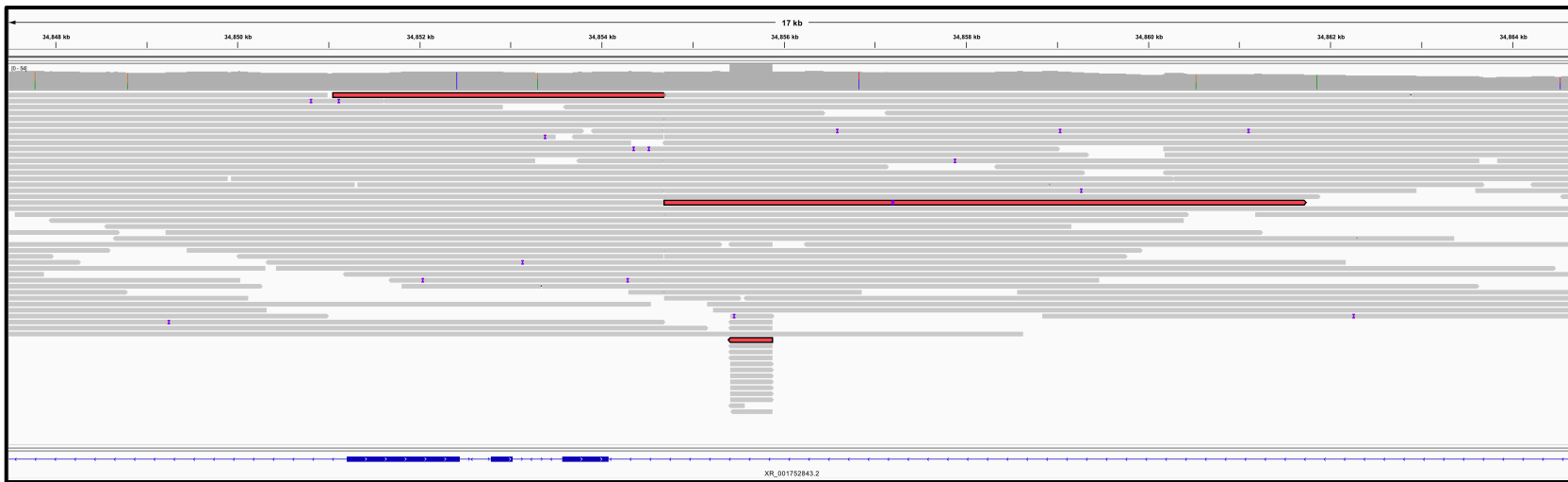# ❖ chr12-77990099-77994485

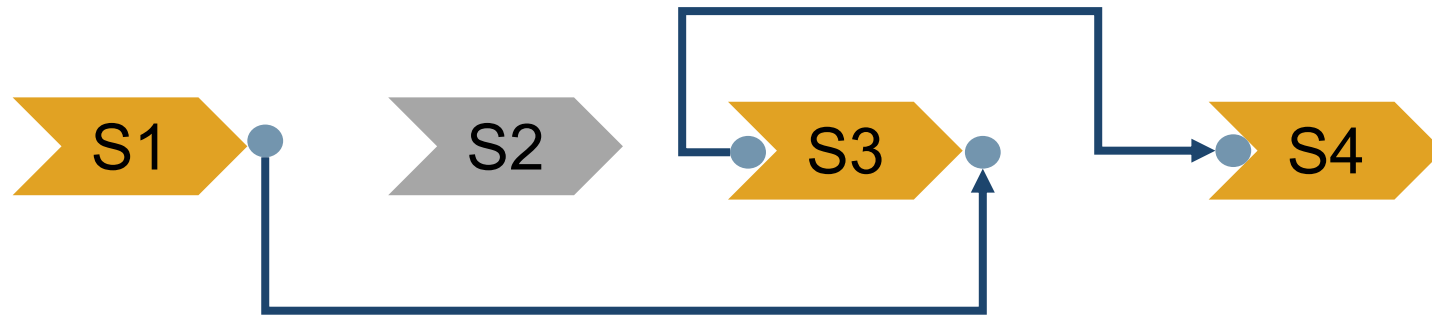# ❖ chr14-47854765-47856277

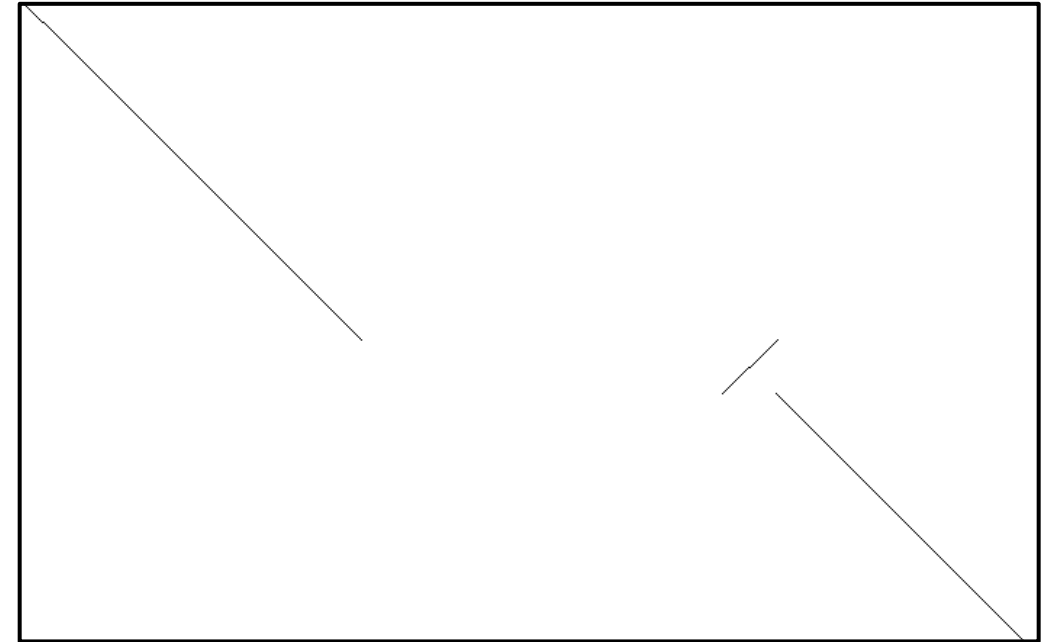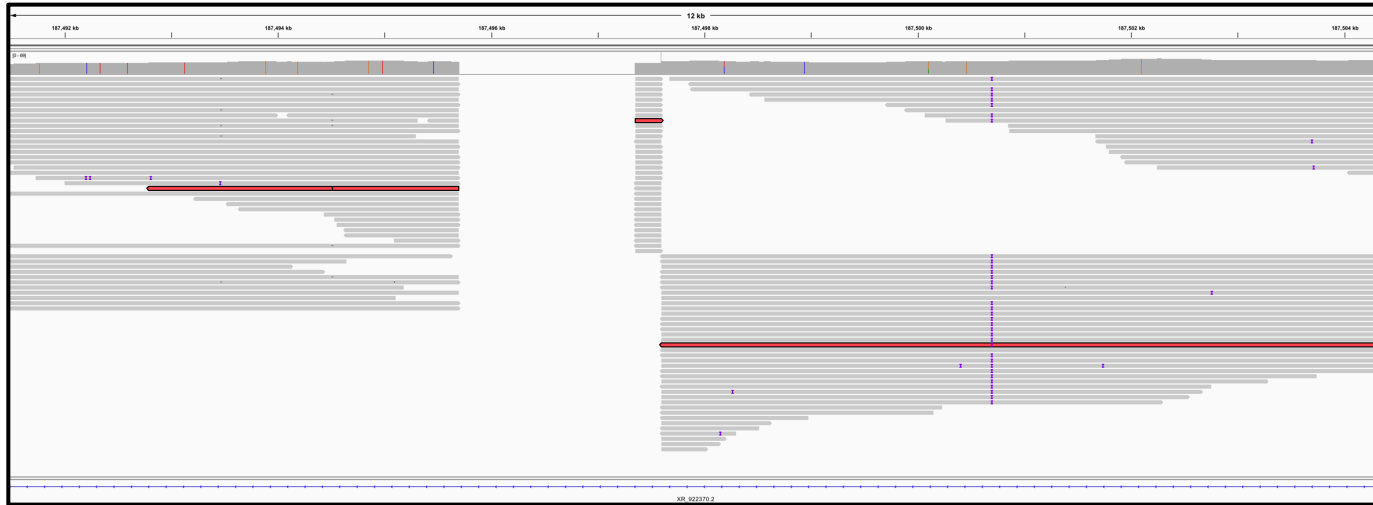# chr16-69727929-69728992

chr17-34854678-34855853

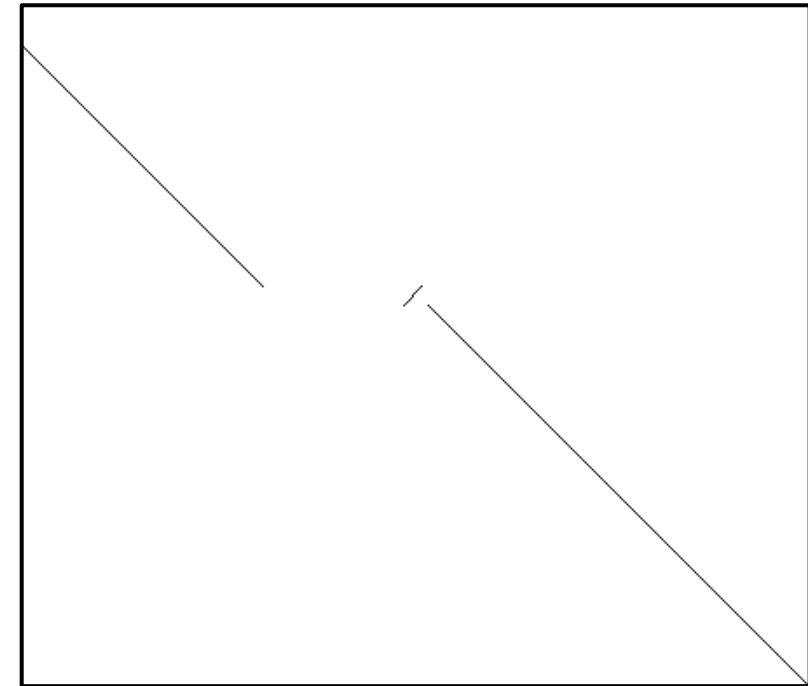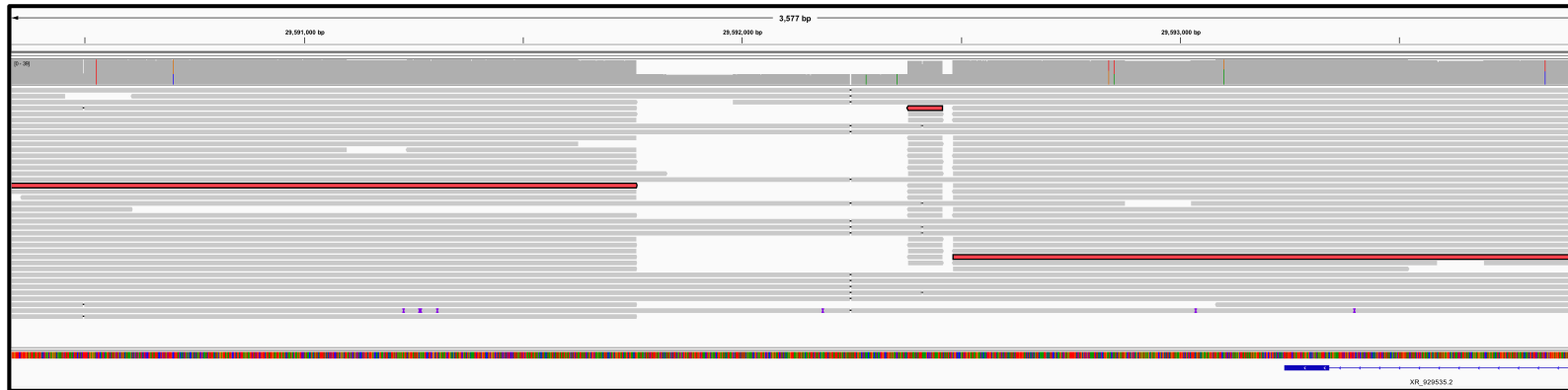# GraphID-15, deletion-inversion

Nodes=S:4

❖ chr1-187495696-187497594

chr3-162807955-162829868

chr9-29591760-29592481

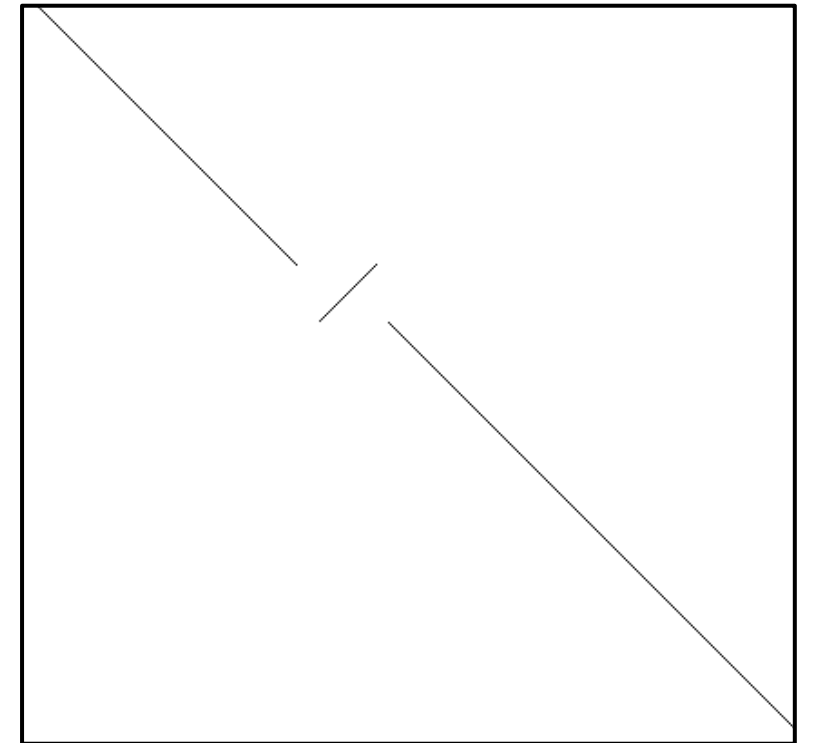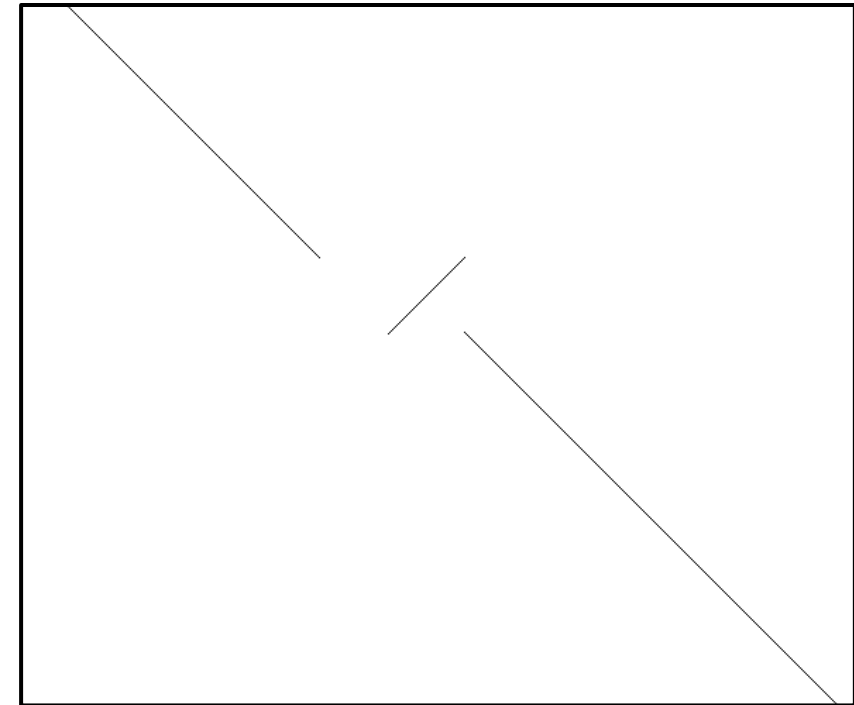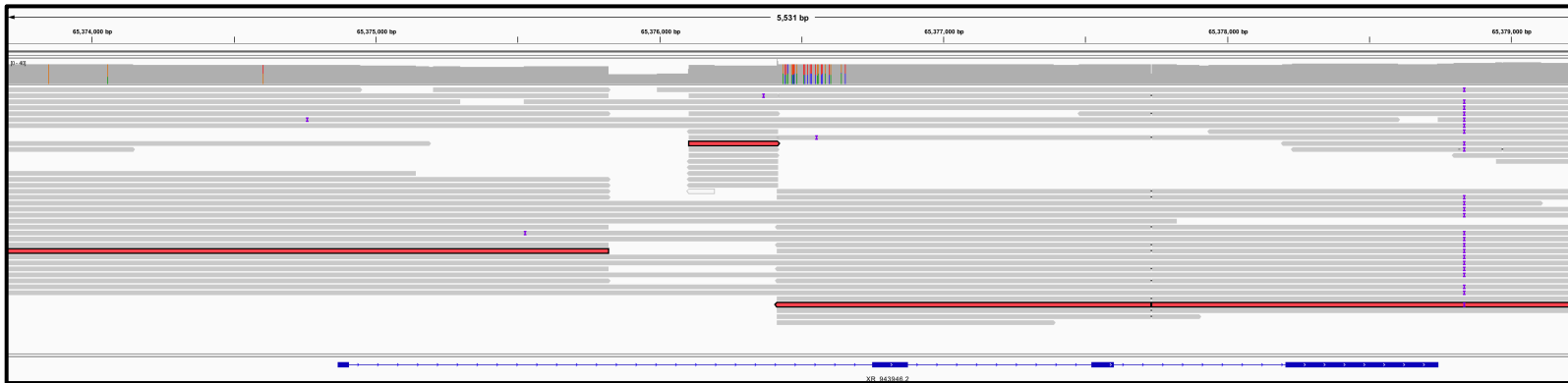# chr9-86539643-86541026
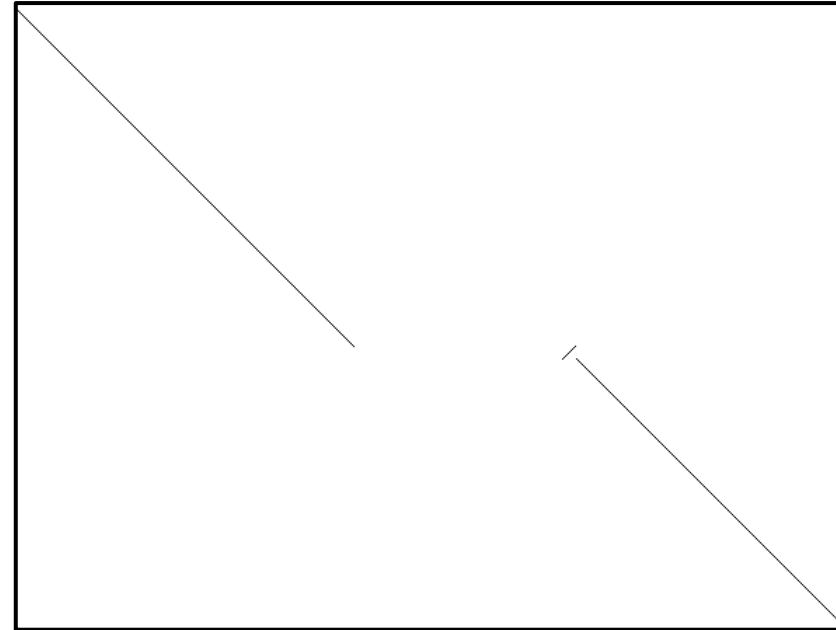
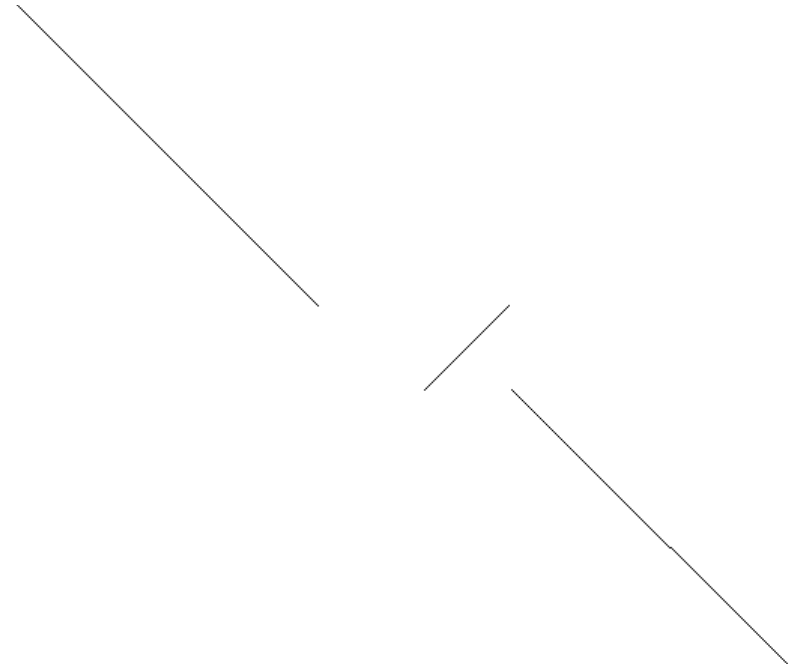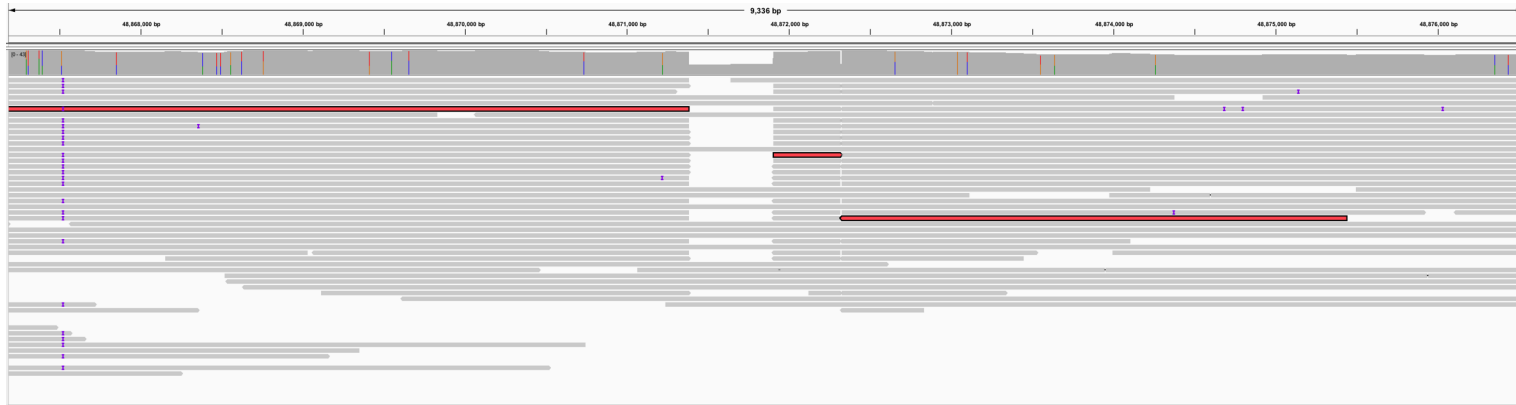# ❖ chr10-57497186-57498223
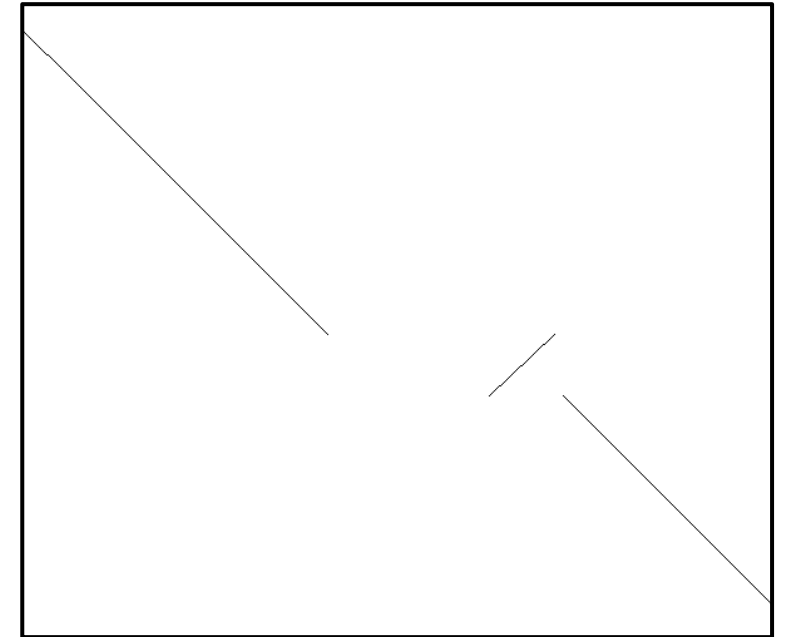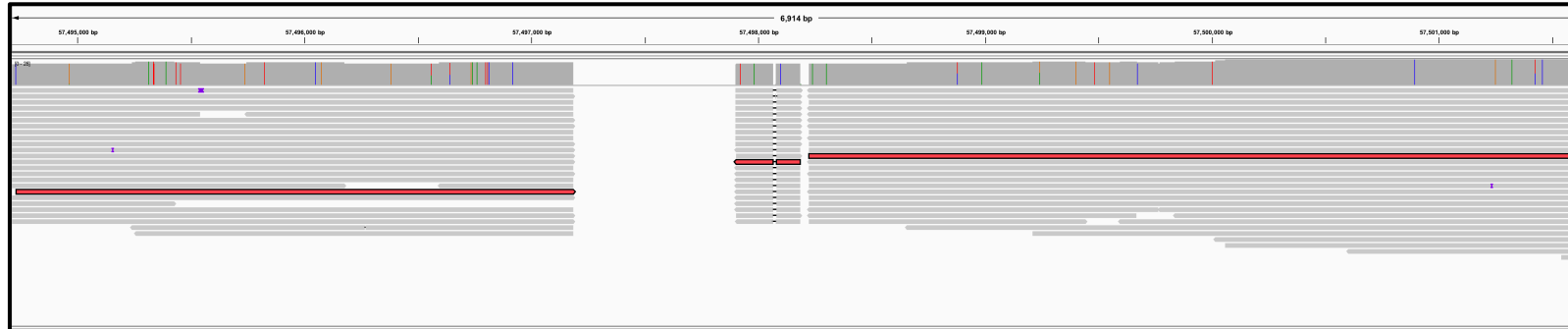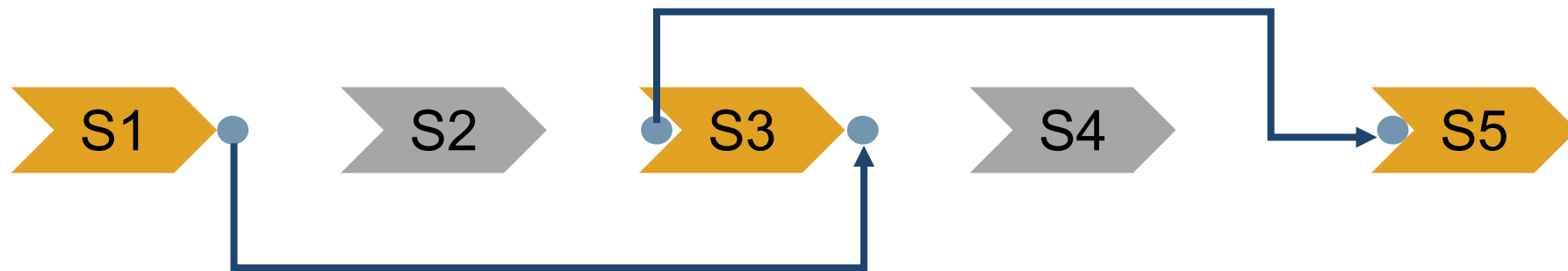
❖ chr12-39466255-39466532
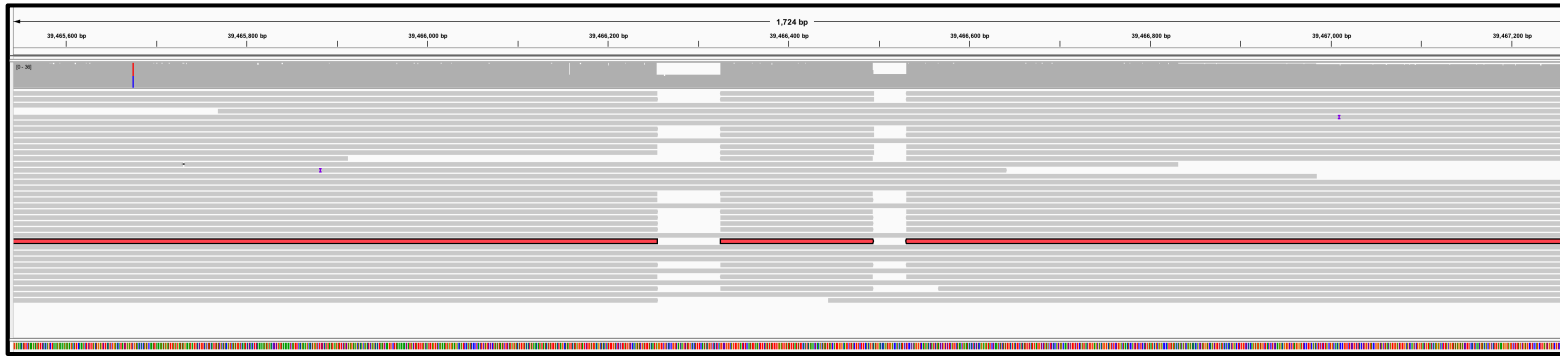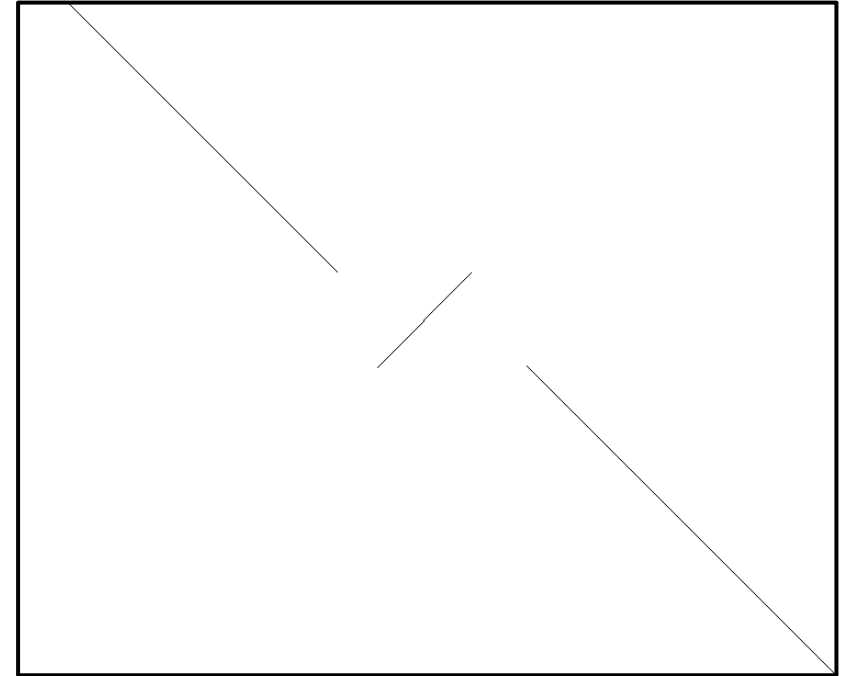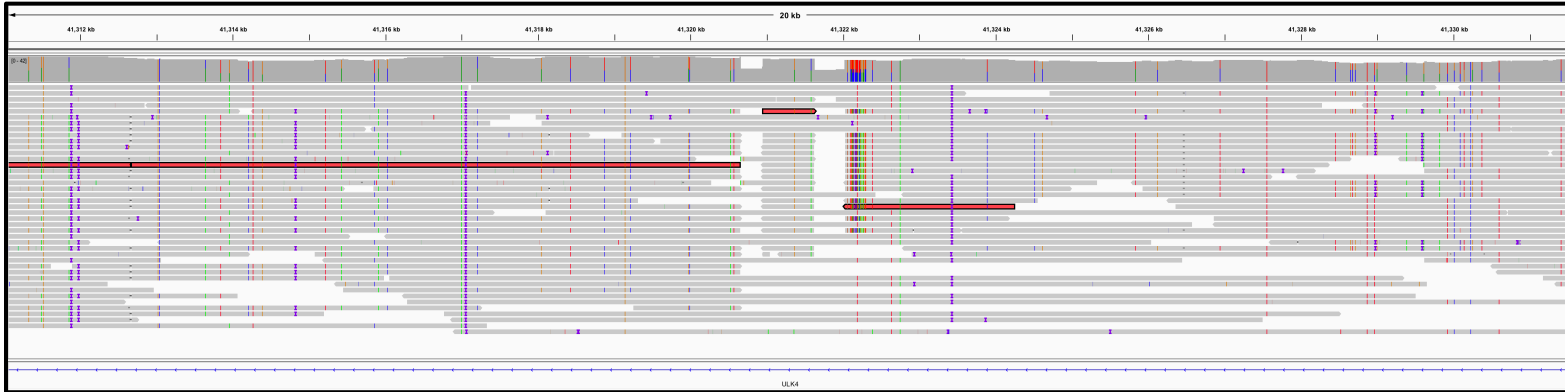
❖ chr14-65375820-65376415
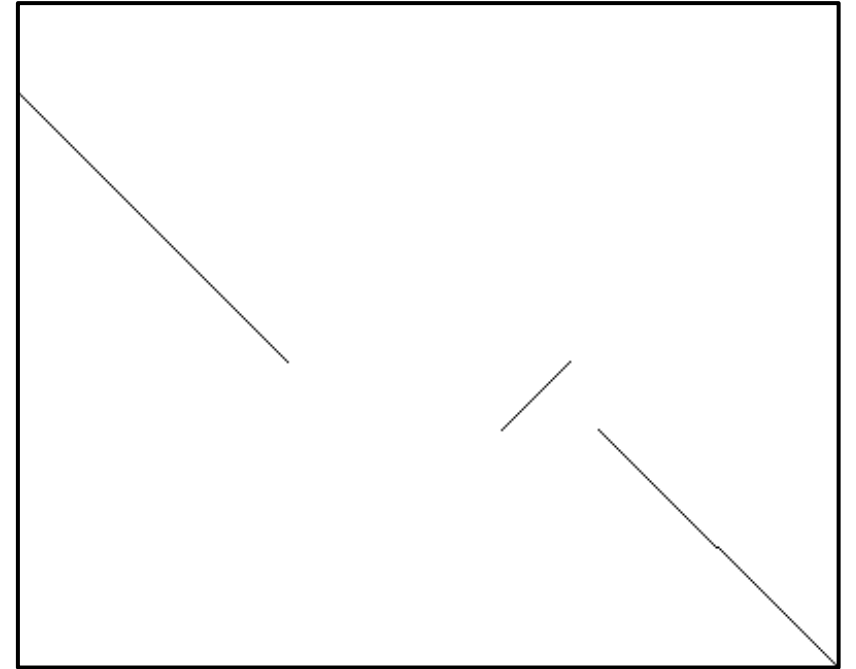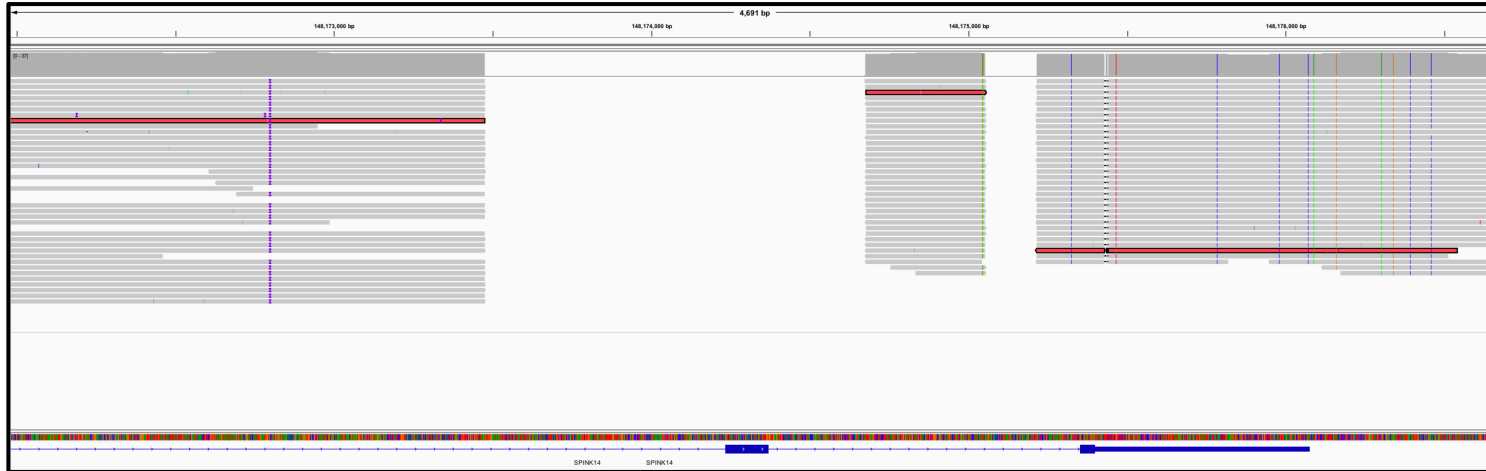
chr16-48871382-48872323
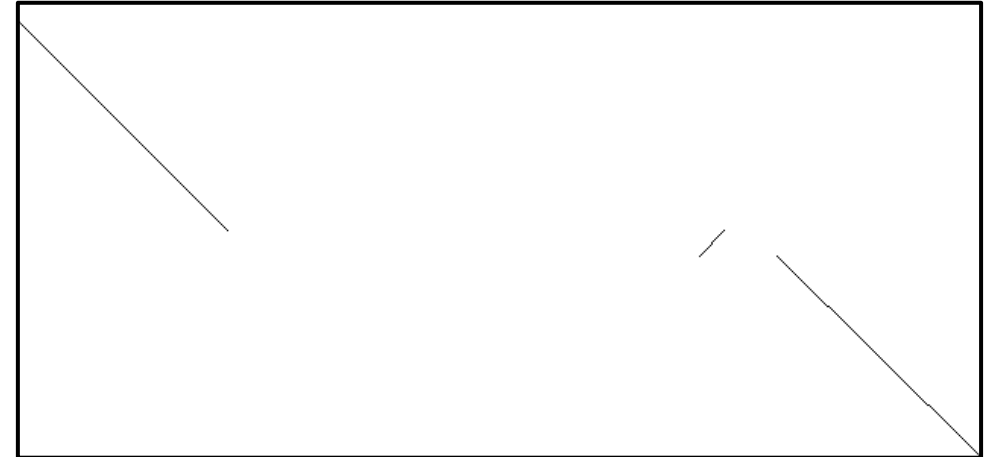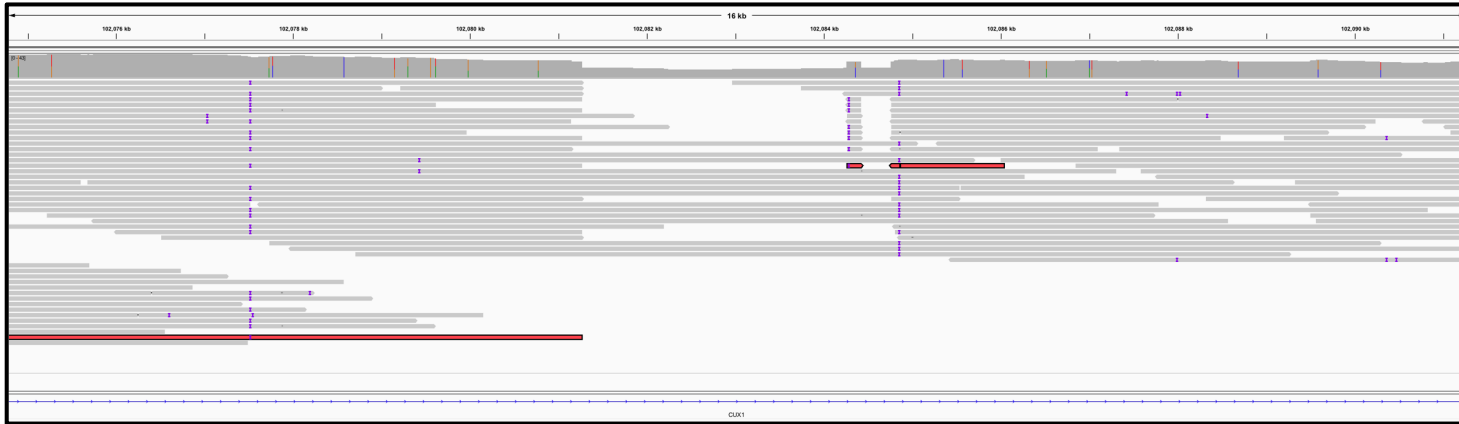
GraphID-27, deletion-spacer-deletion
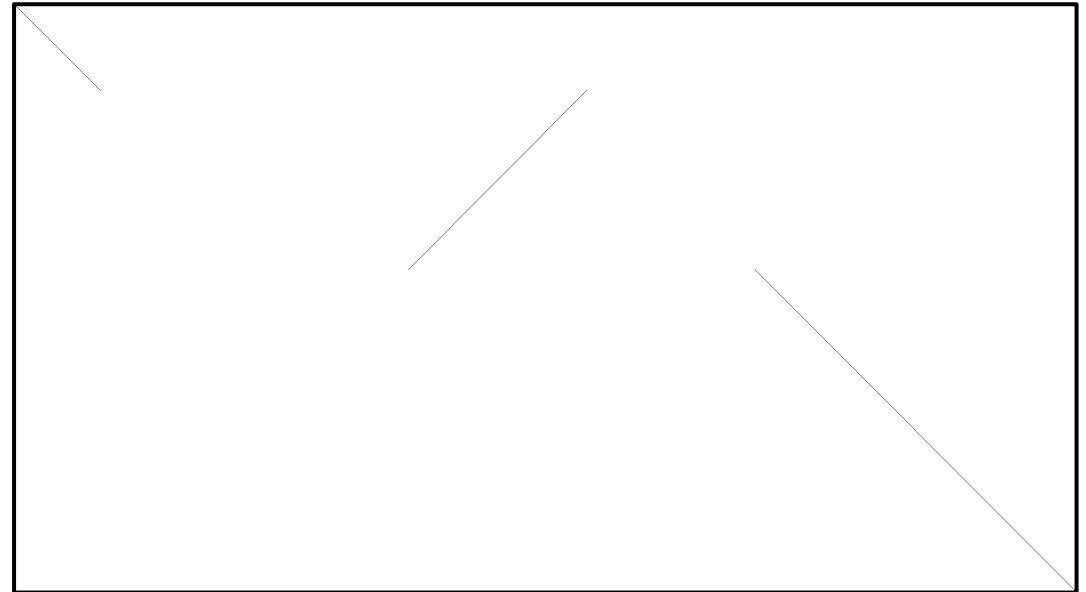

Nodes=S:5

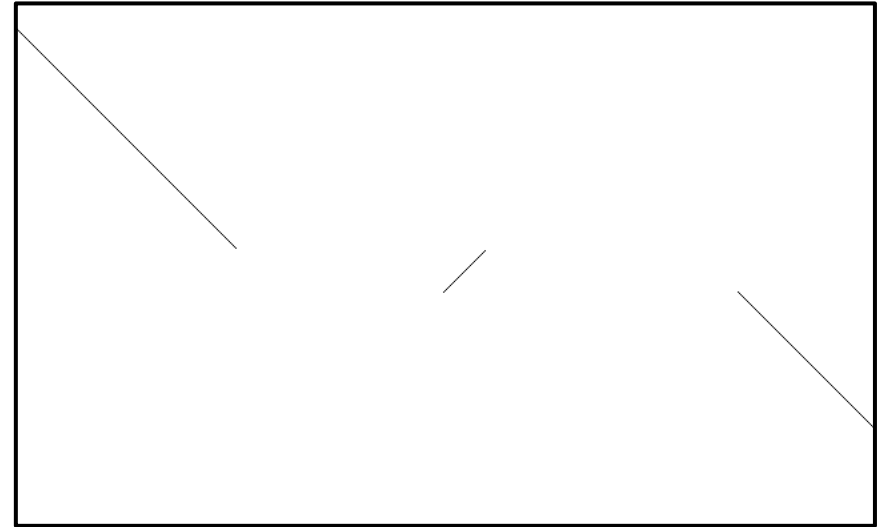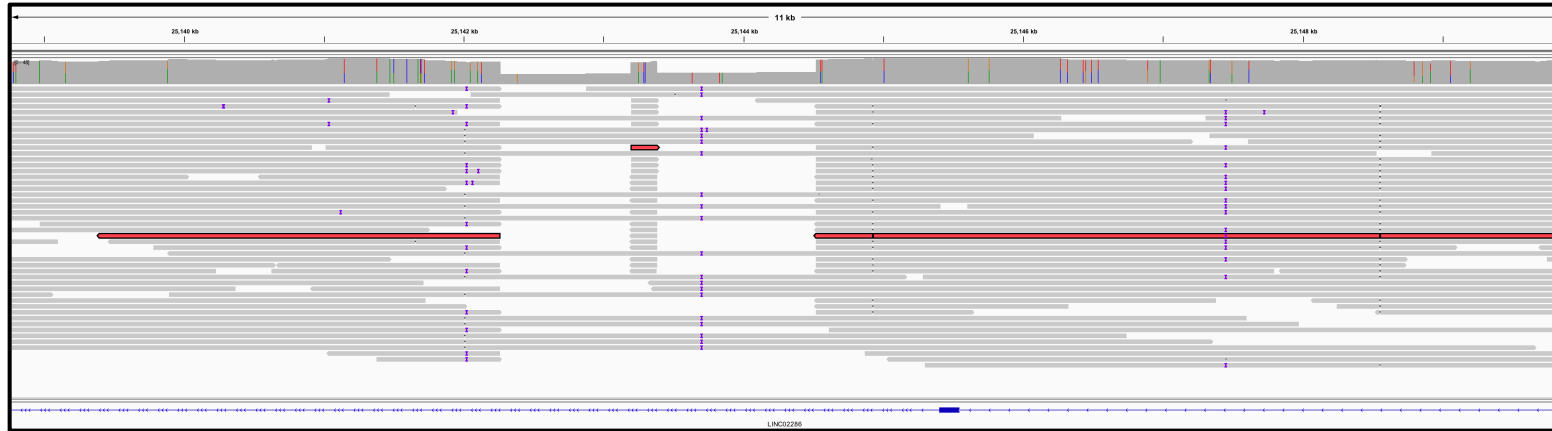# ❖ chr3-41320665-41321935

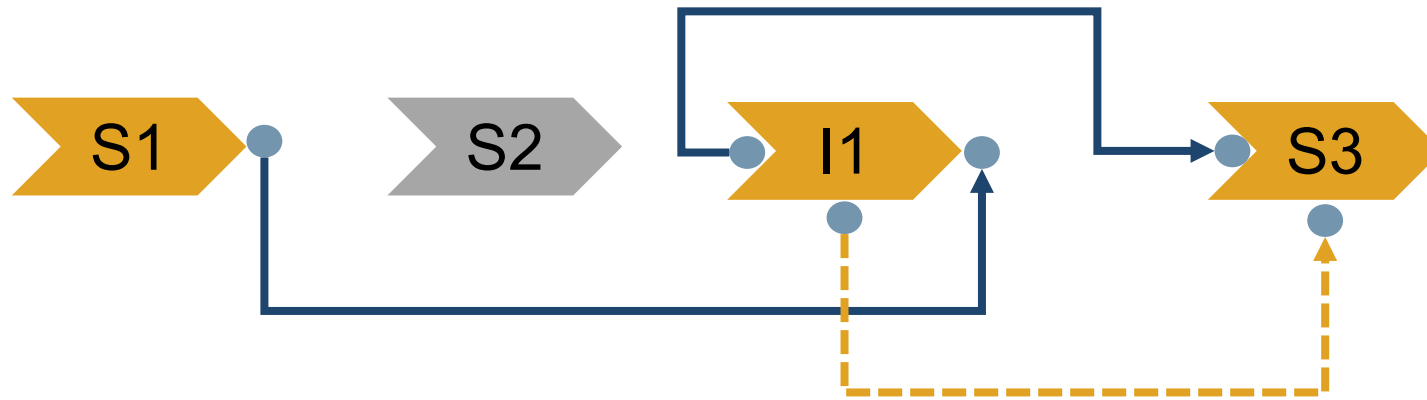# ❖ chr5-148173476-148175199

❖ chr7-102081266-102084757
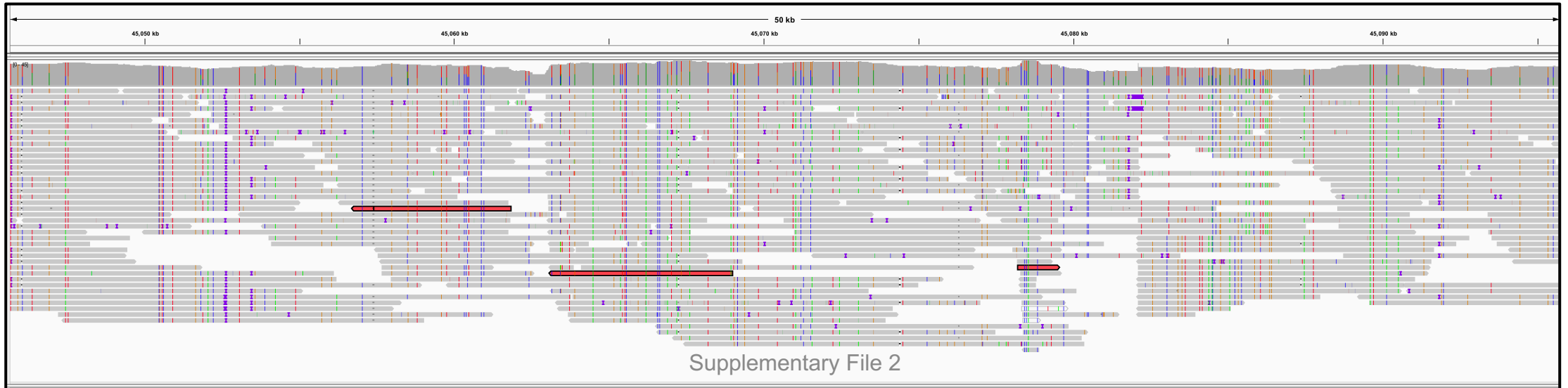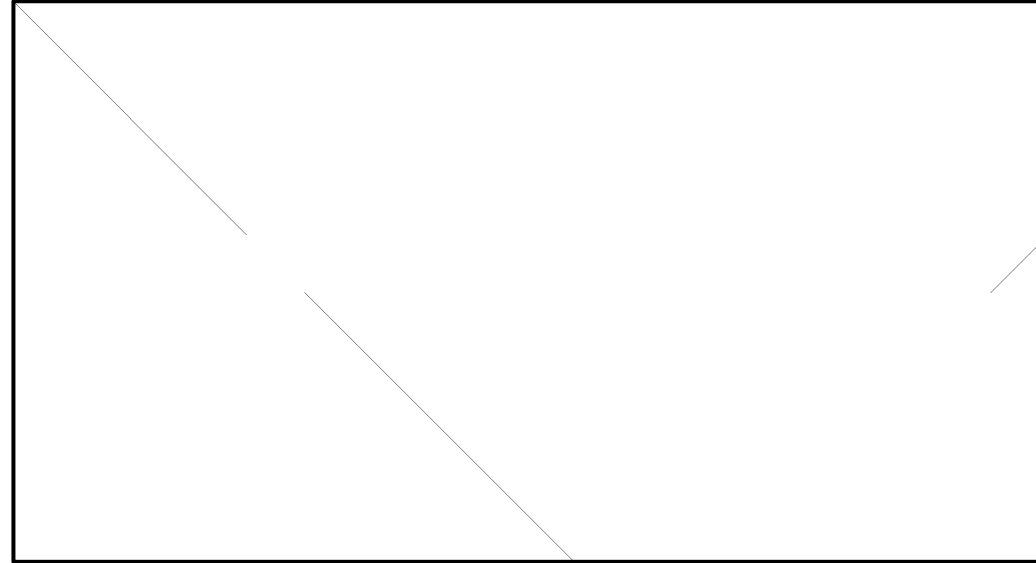
chr9-62806327-62822799
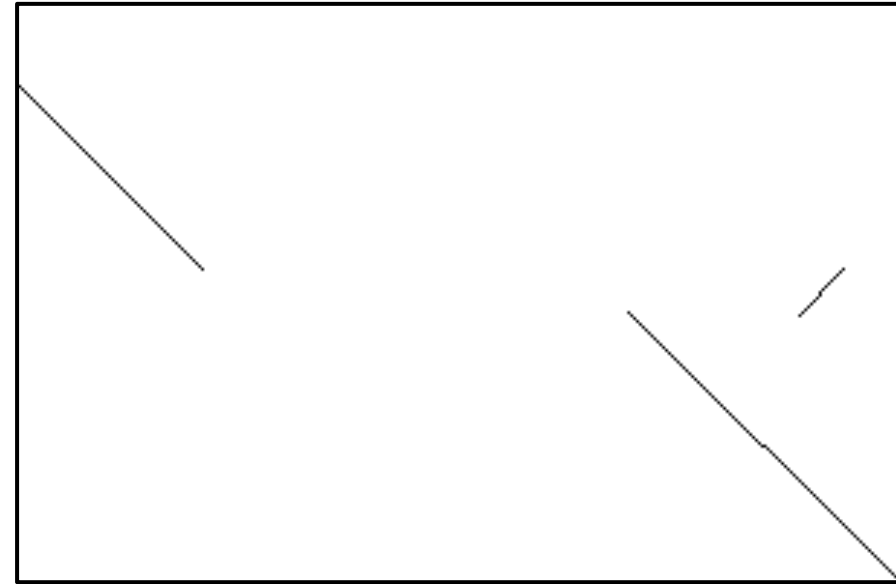
chr14-25142261-25144518
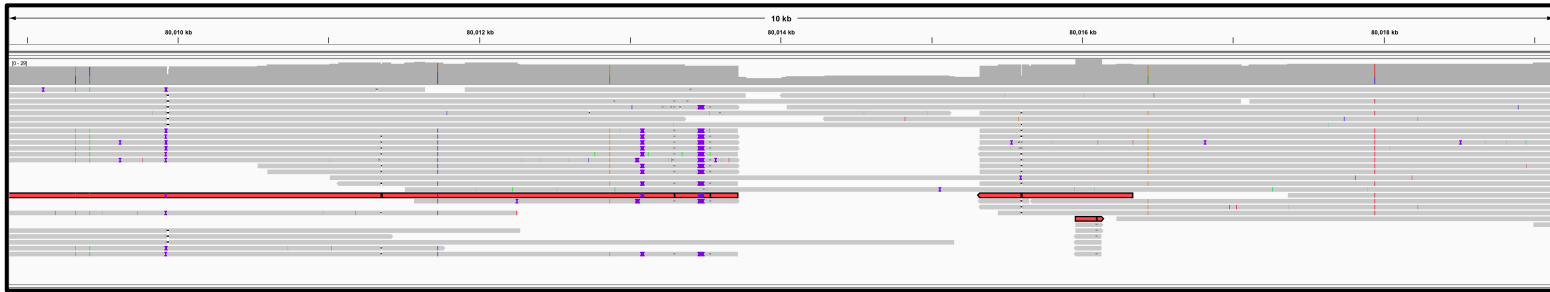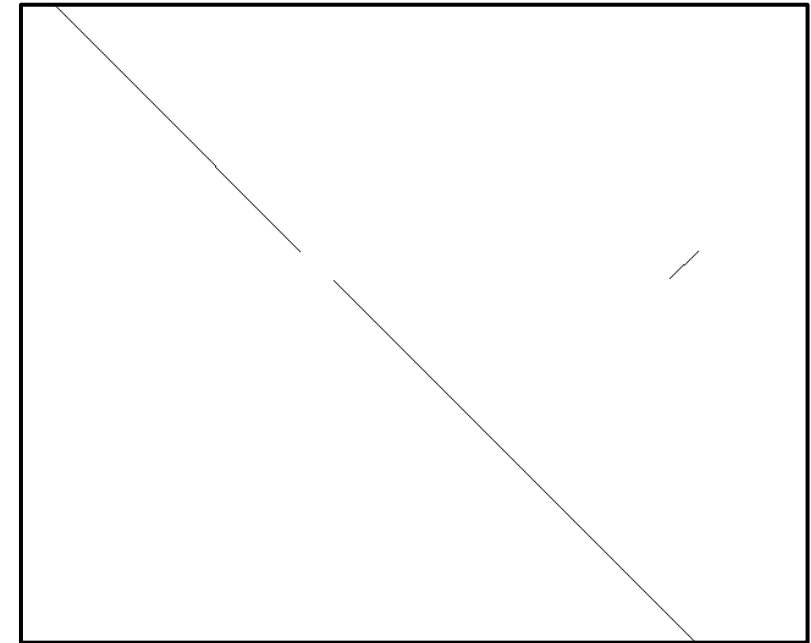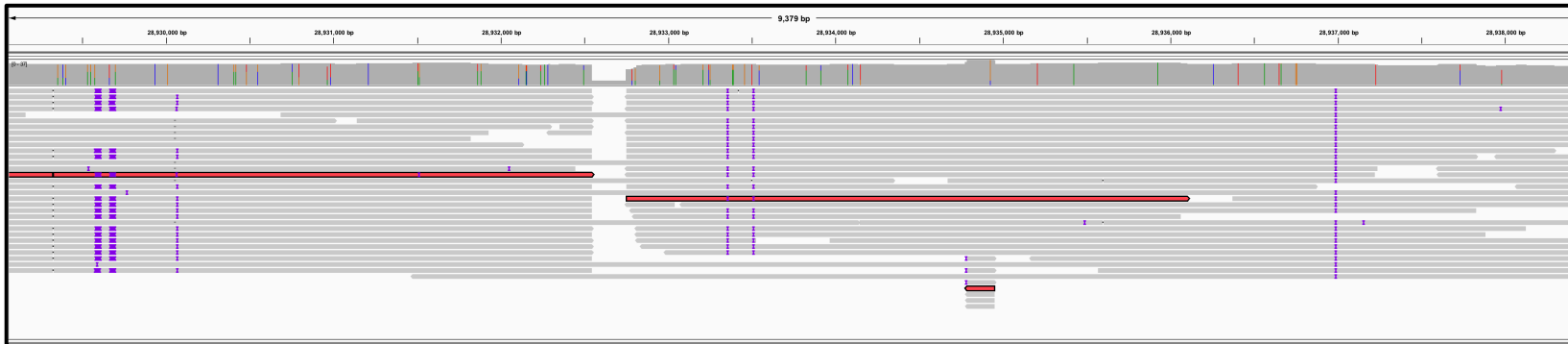
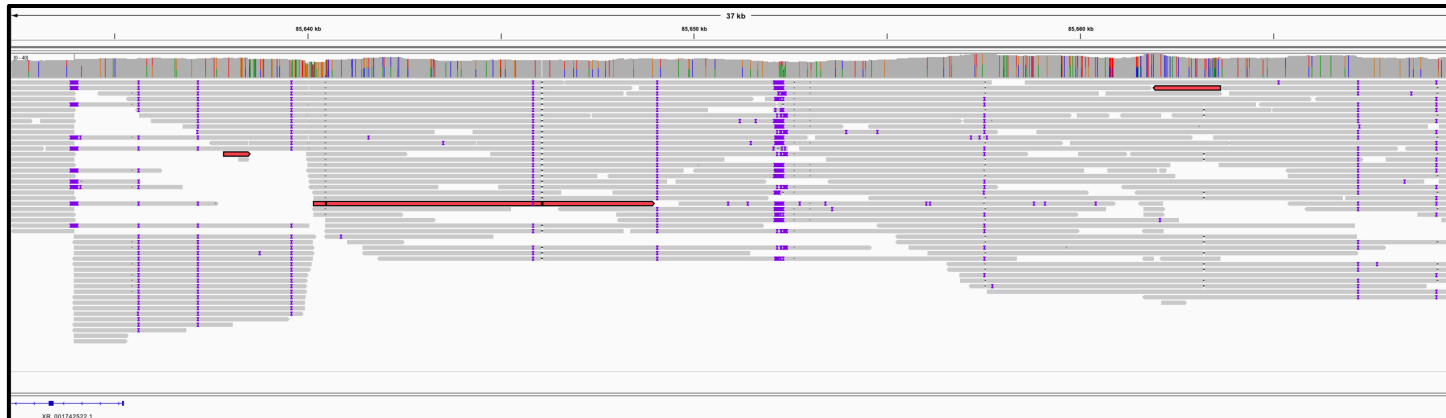# GraphID-23, deletion and inverted duplication

Nodes=S:3,I:1,D:1

chr2-45061833-45079498

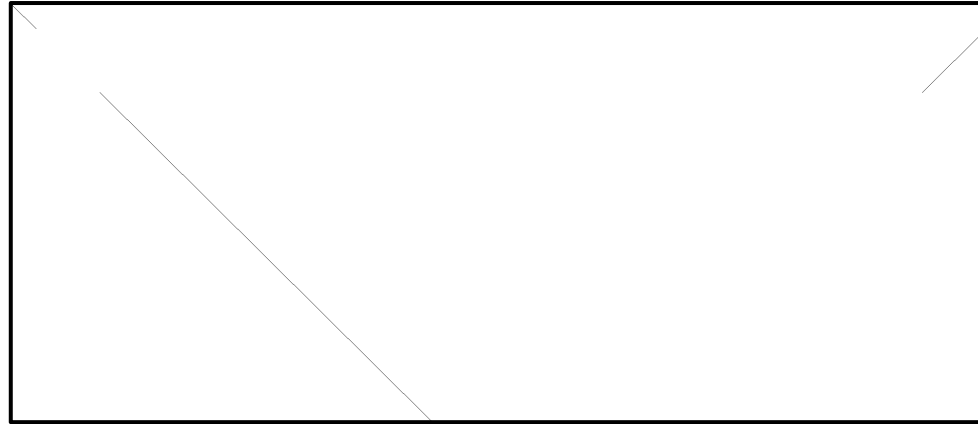
Supplementary File 2

chr3-80013716-80016128

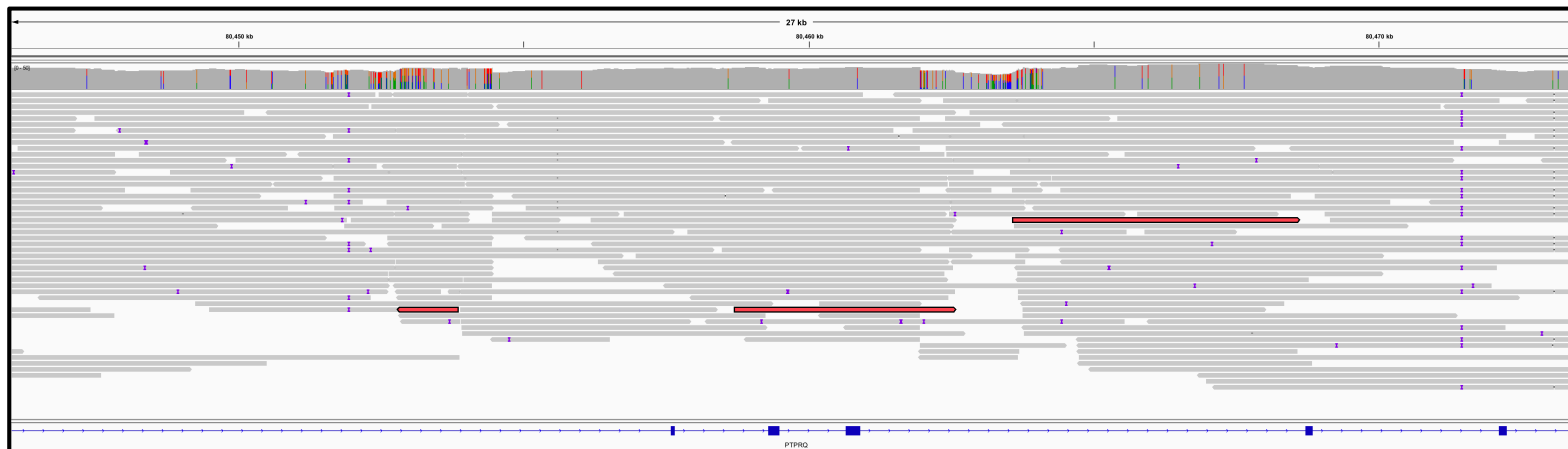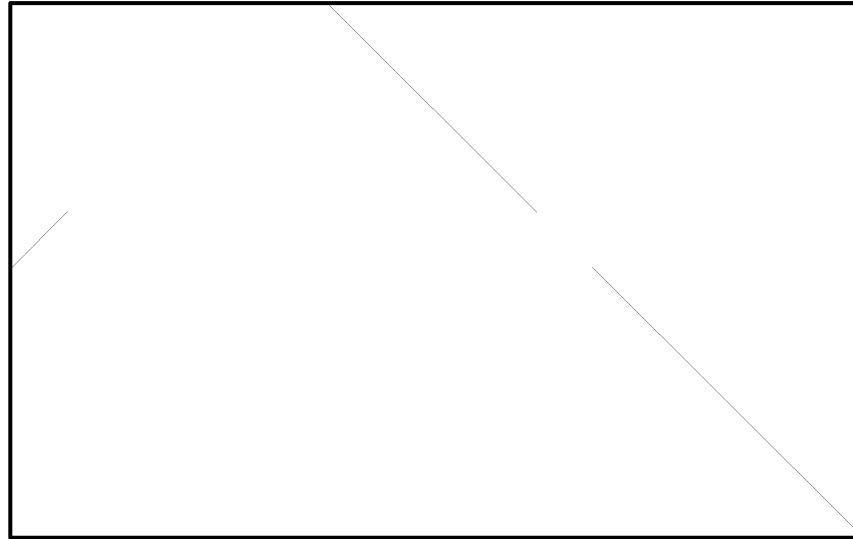# chr5-28932544-28934950

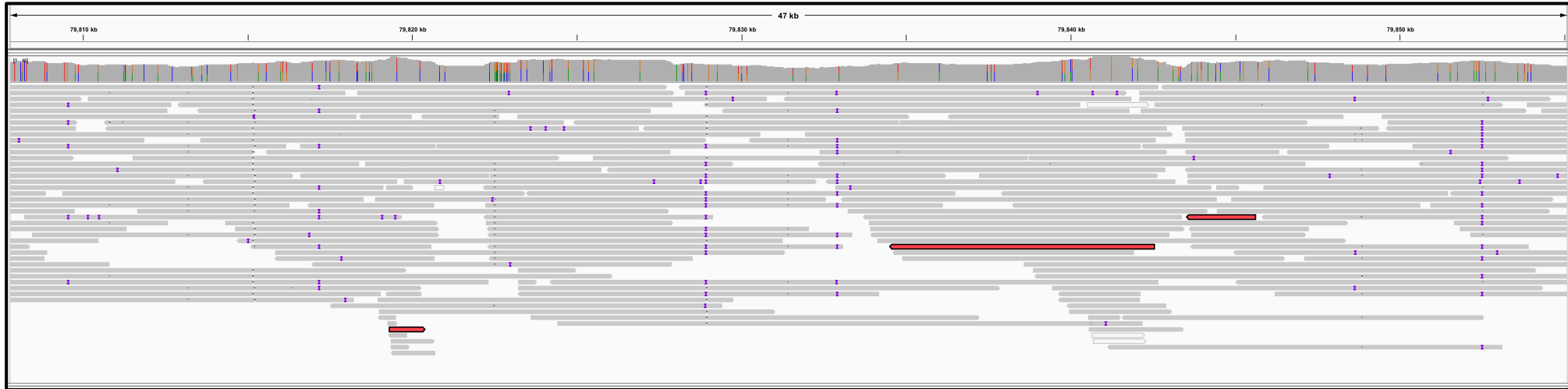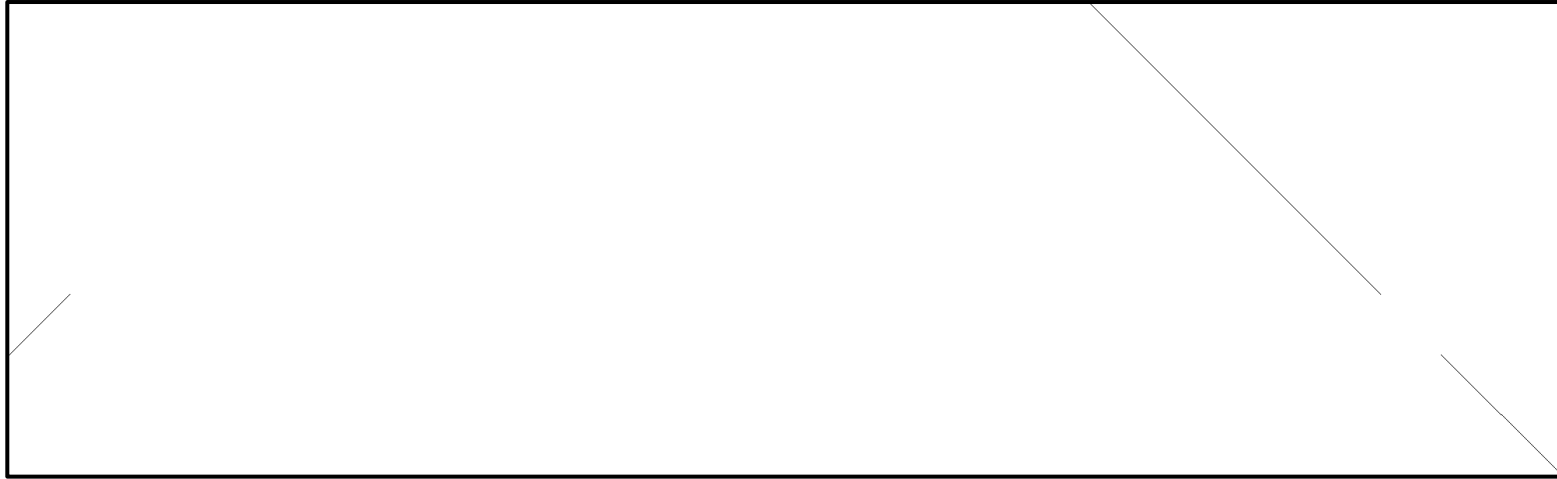# chr5-85639621-85662534

chr6-167220854-167286115
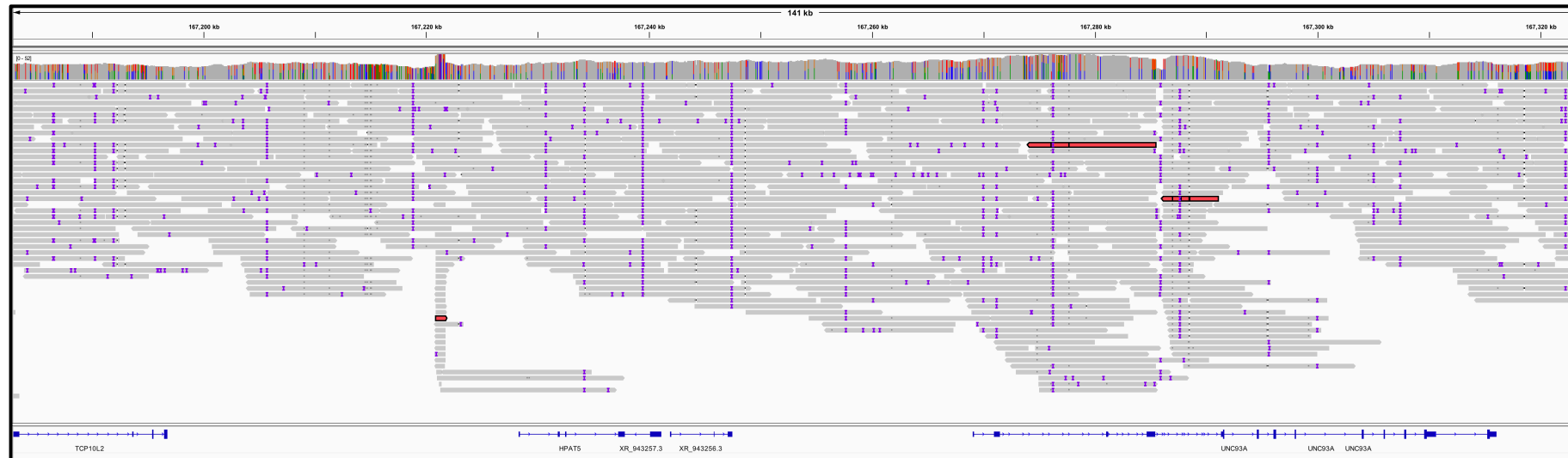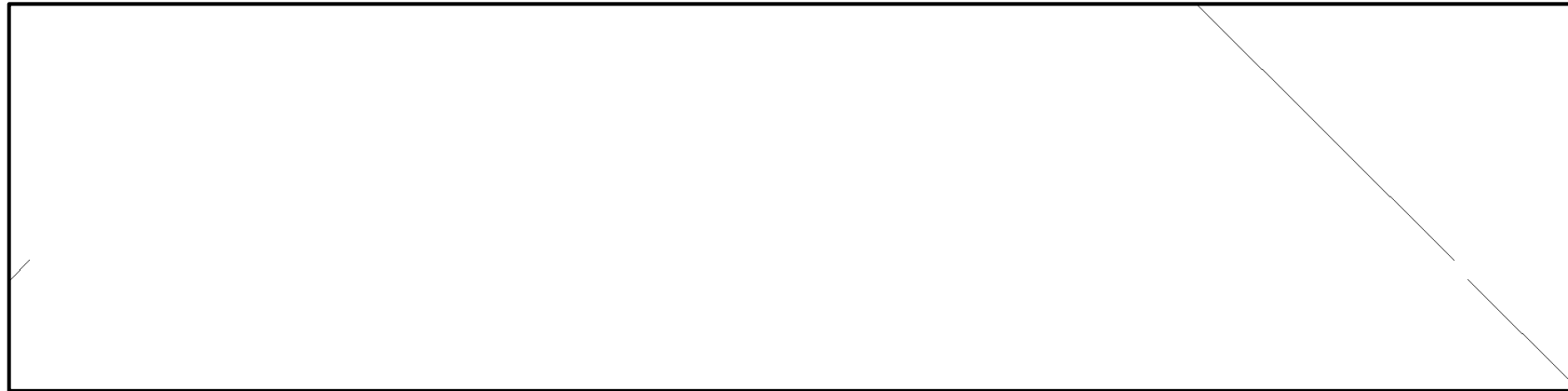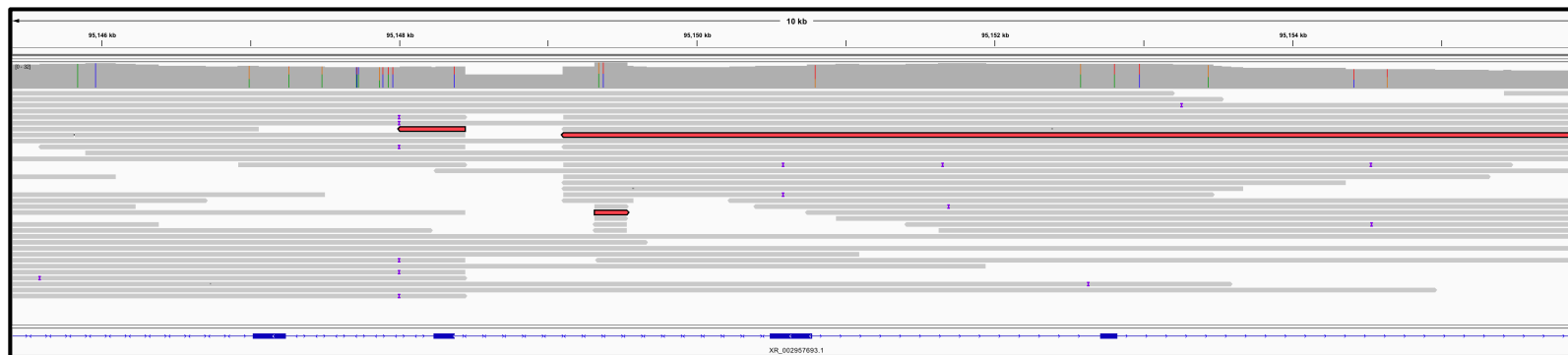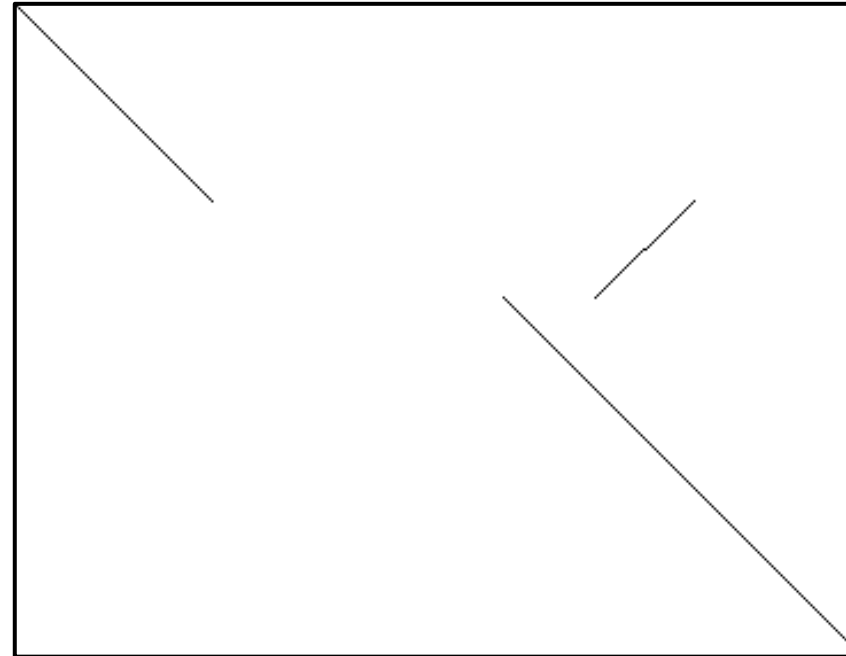
chr7-32684001-32712828
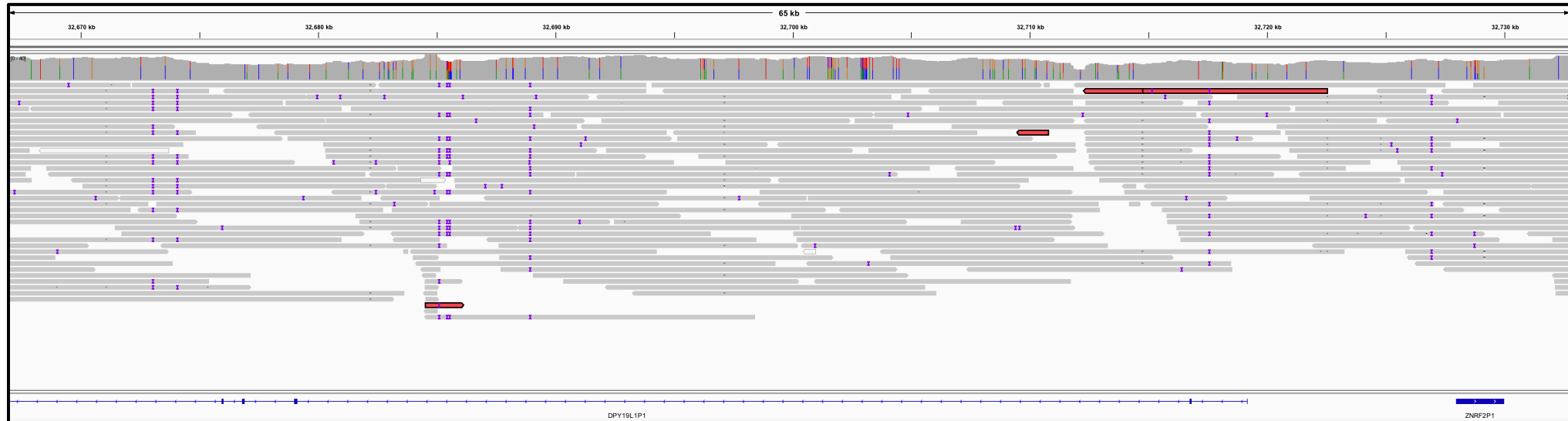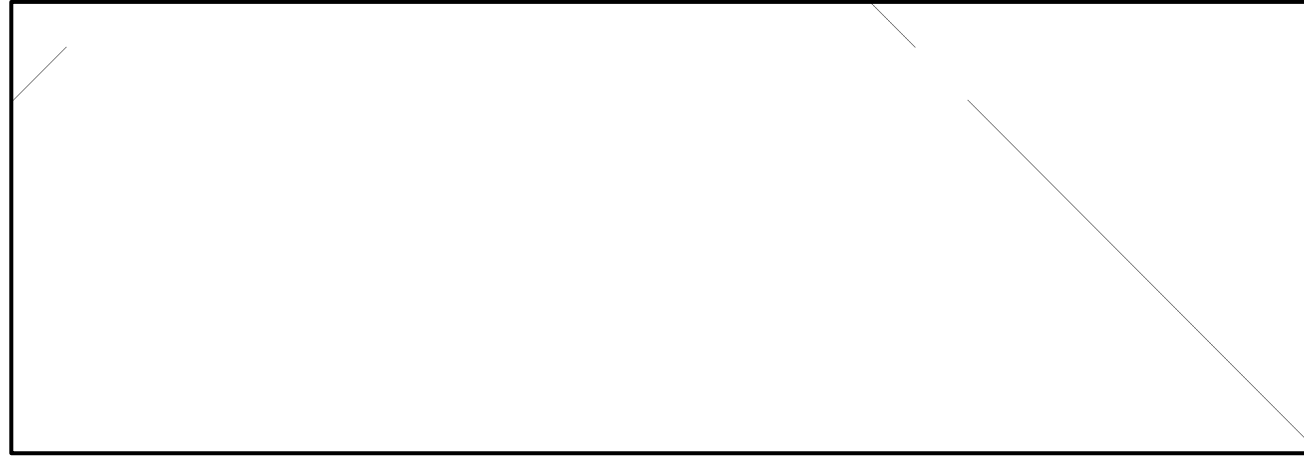
❖ chr12-80452280-80464114

chr13-79819615-79843210

chr15-95148445-95149529

chr20-44677206-44683572

Supplementary File 2
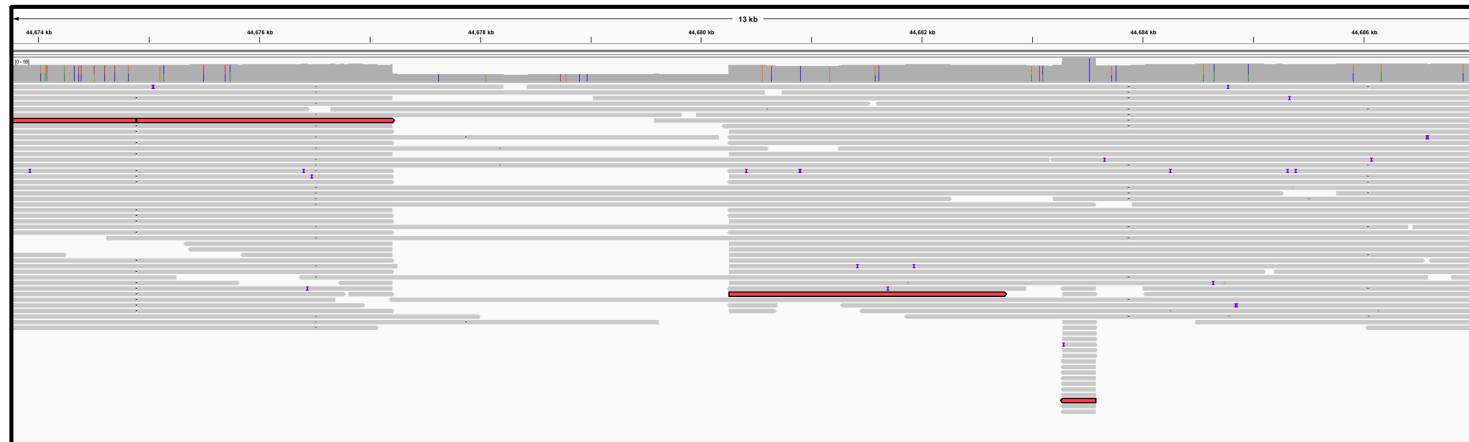
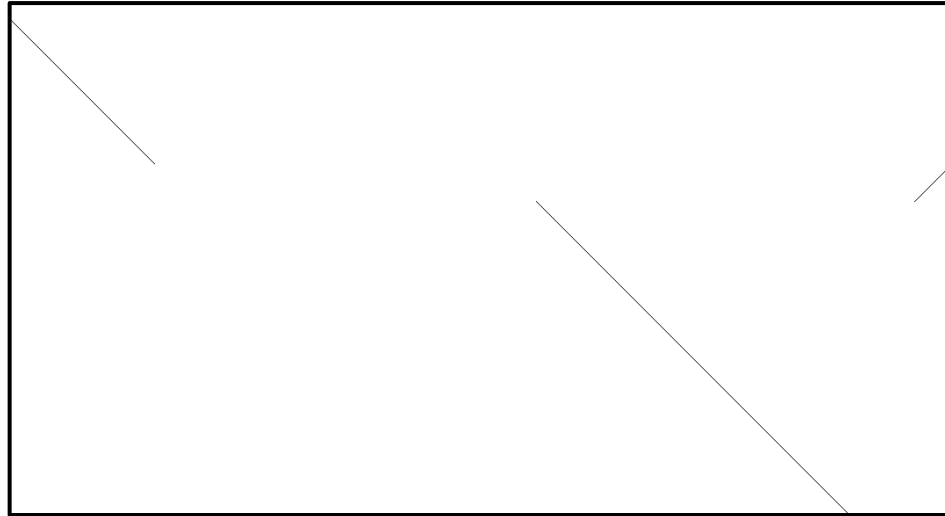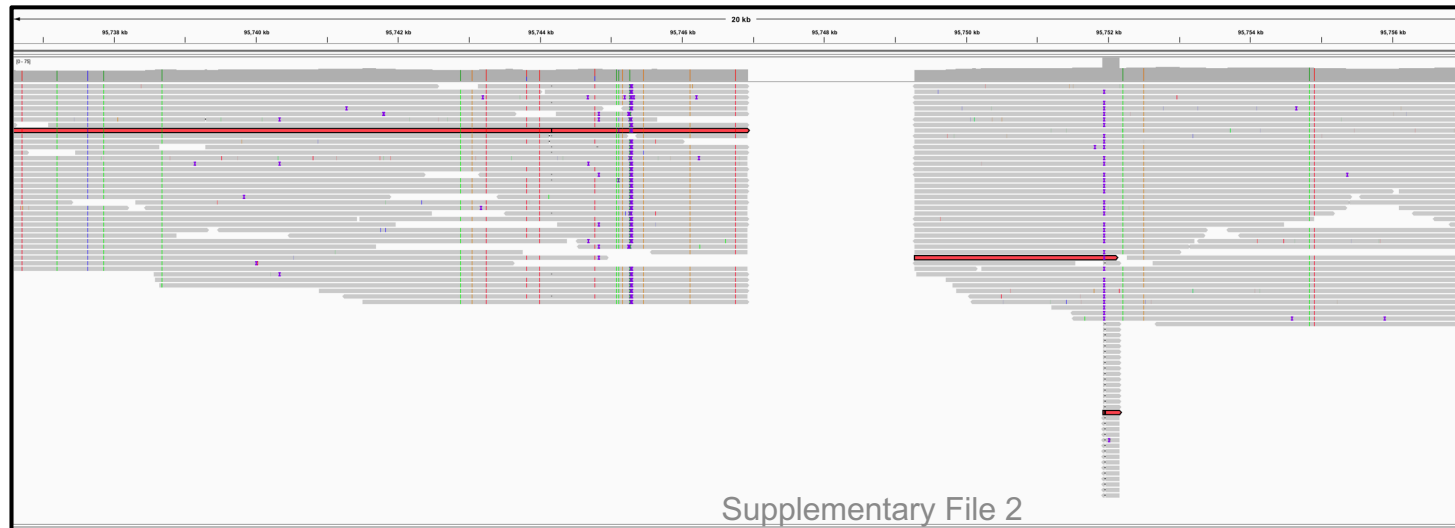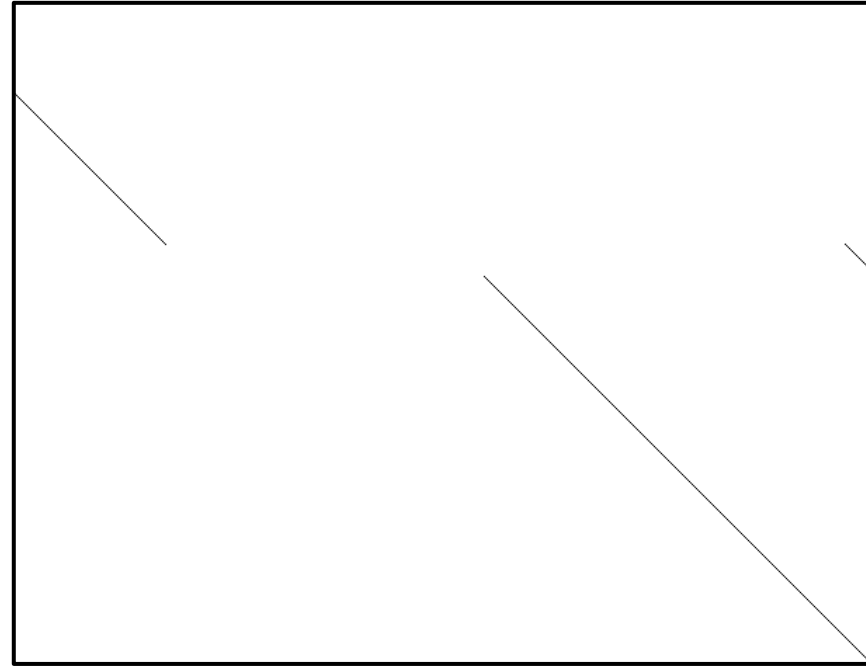# GraphID-28, deletion and dispersed duplication
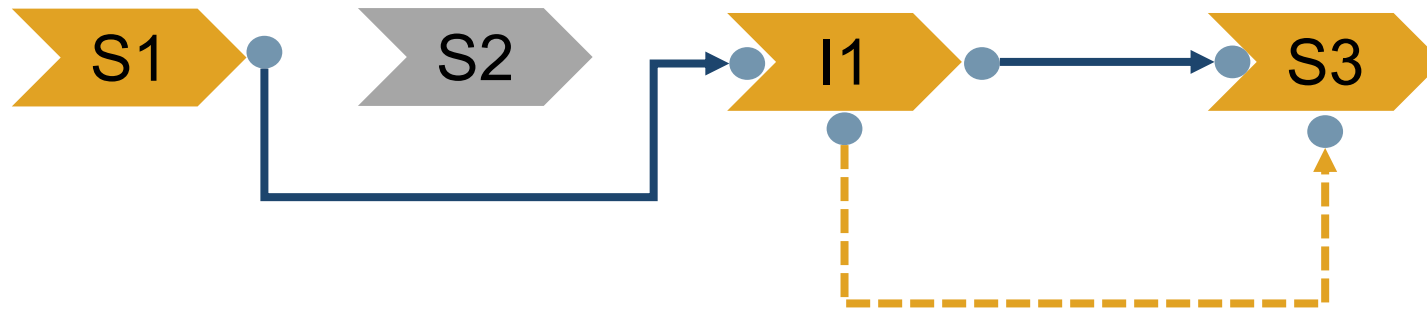
Nodes=S:3,I:1,D:1
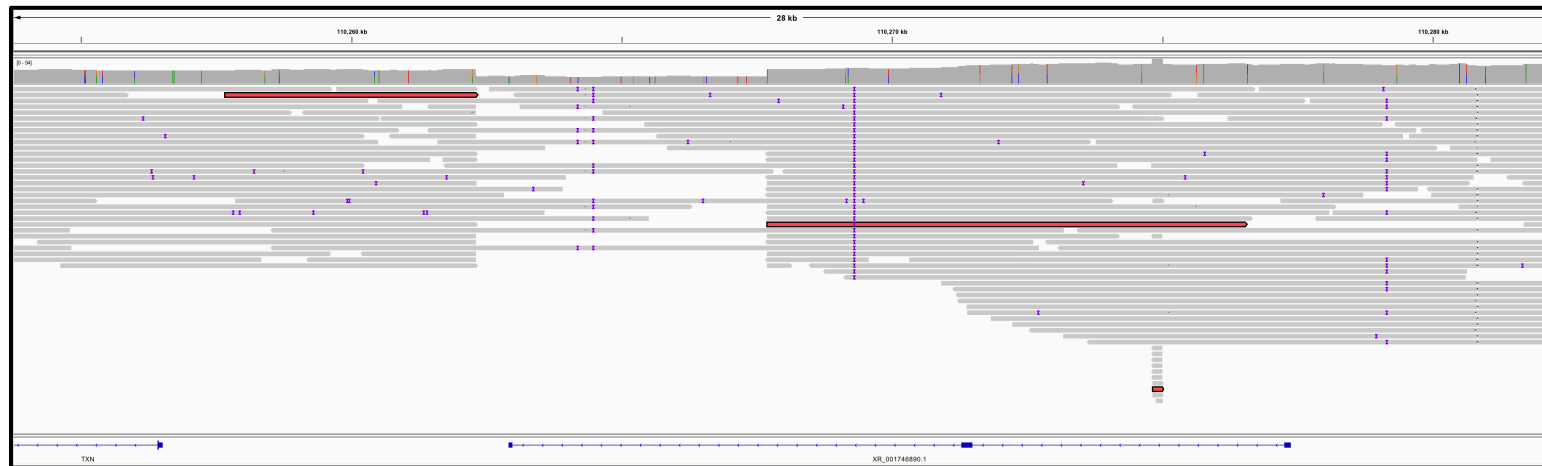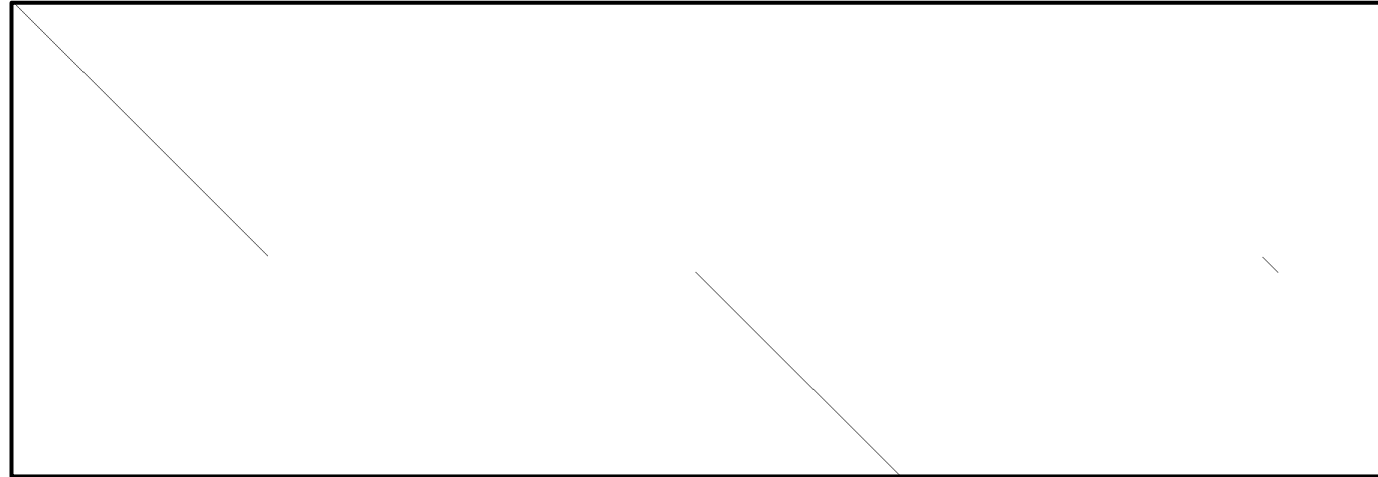
chr3-95746924-95752141

Supplementary File 2

❖ chr3-146667402-146677317
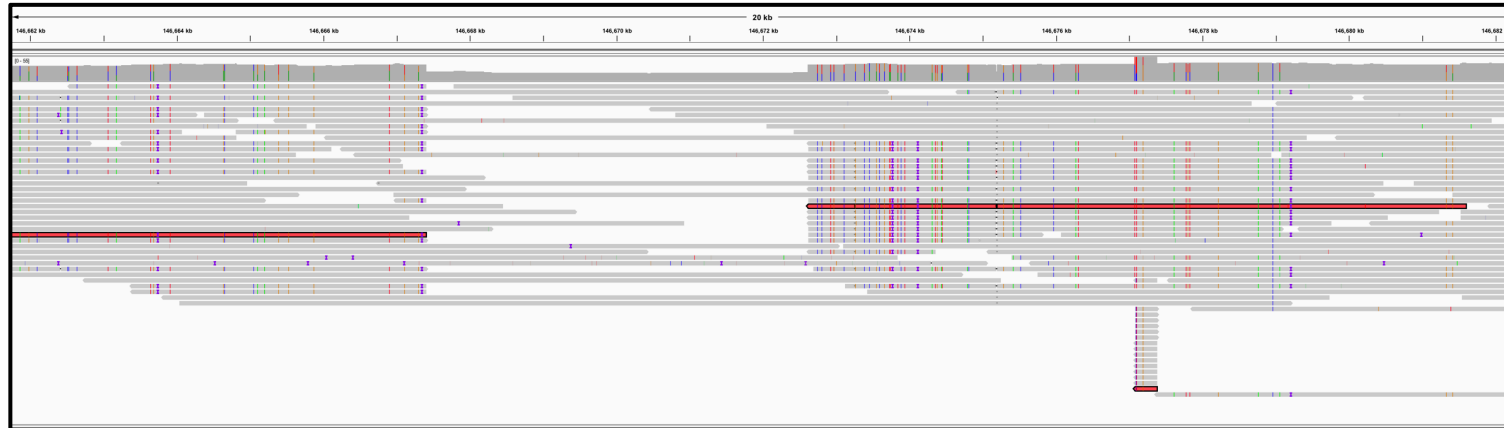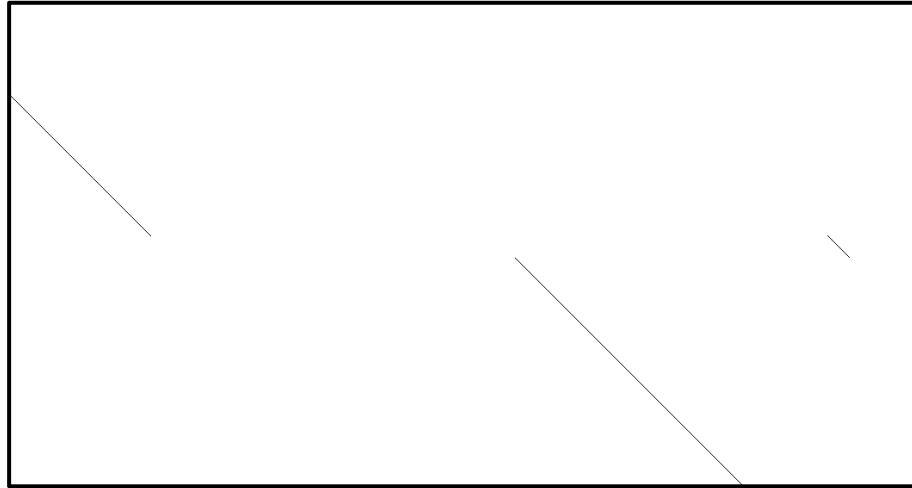
chr9-110262294-110274913
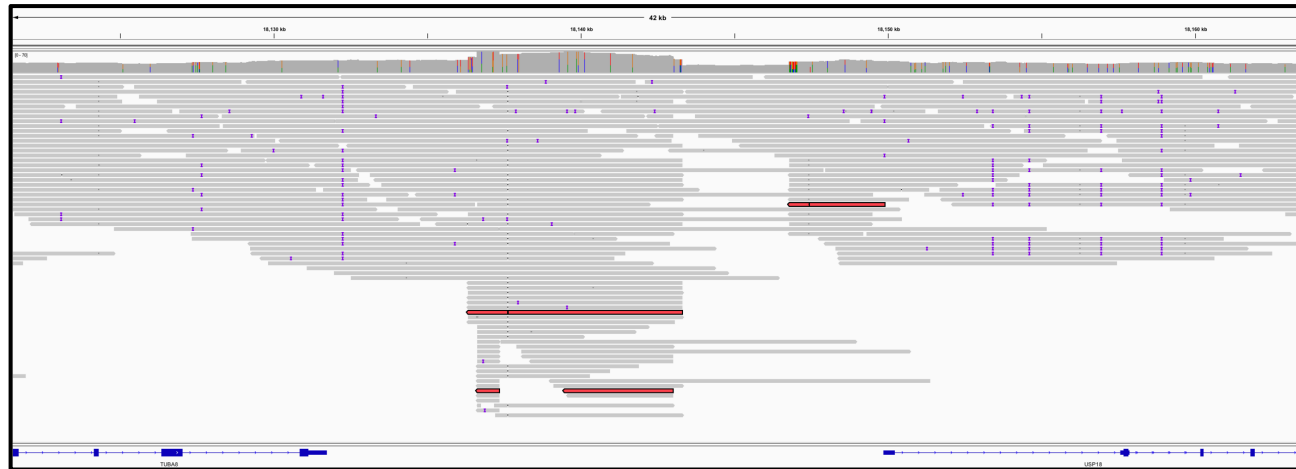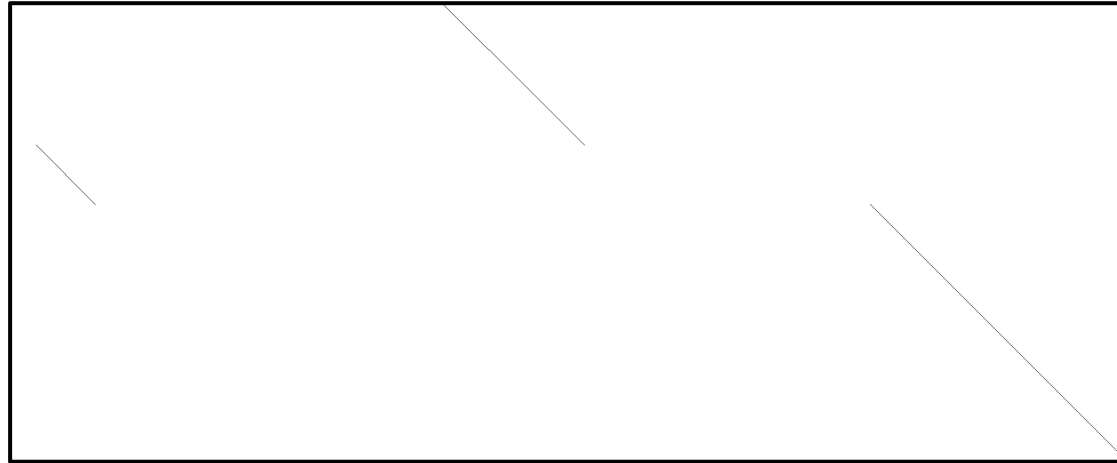
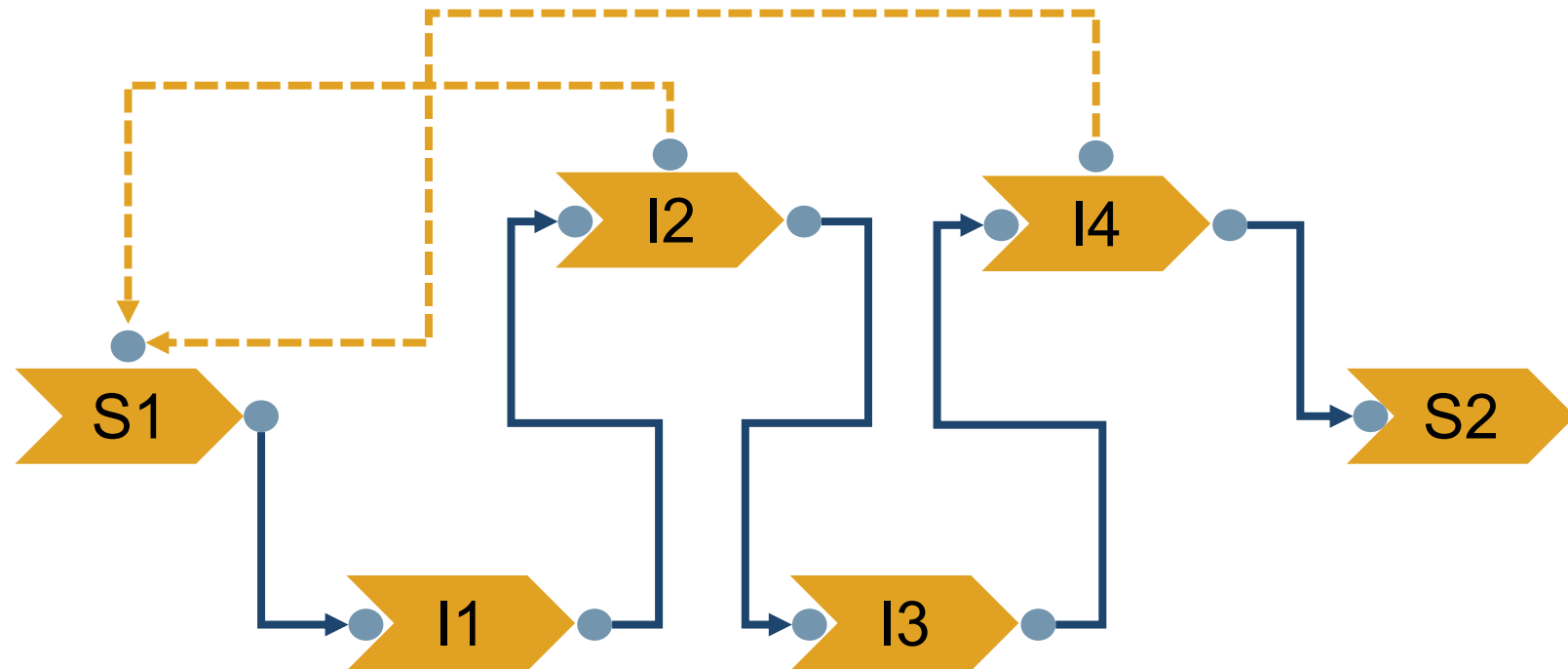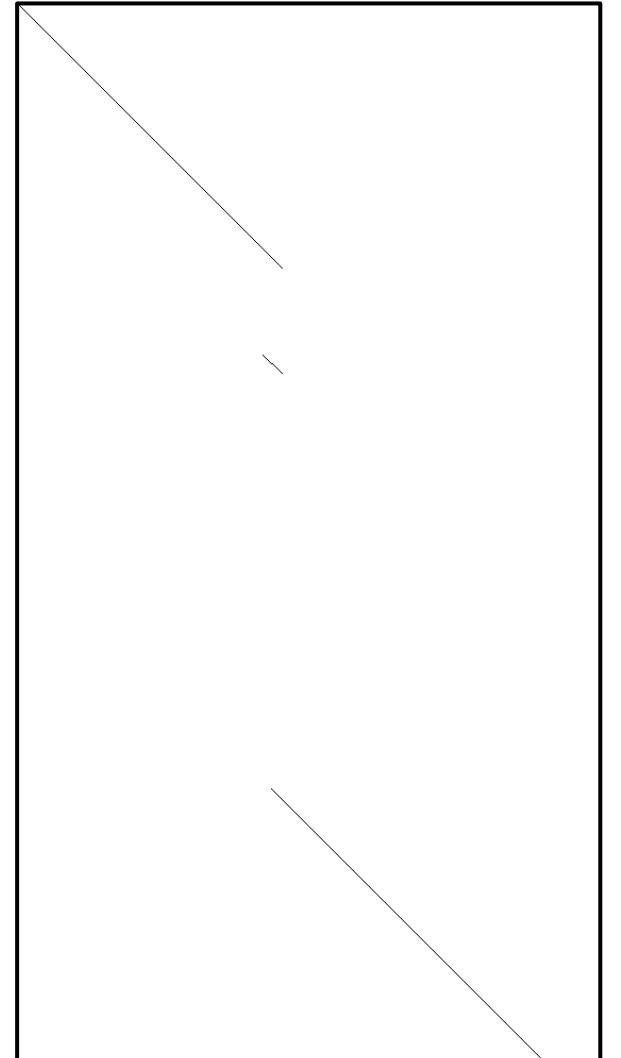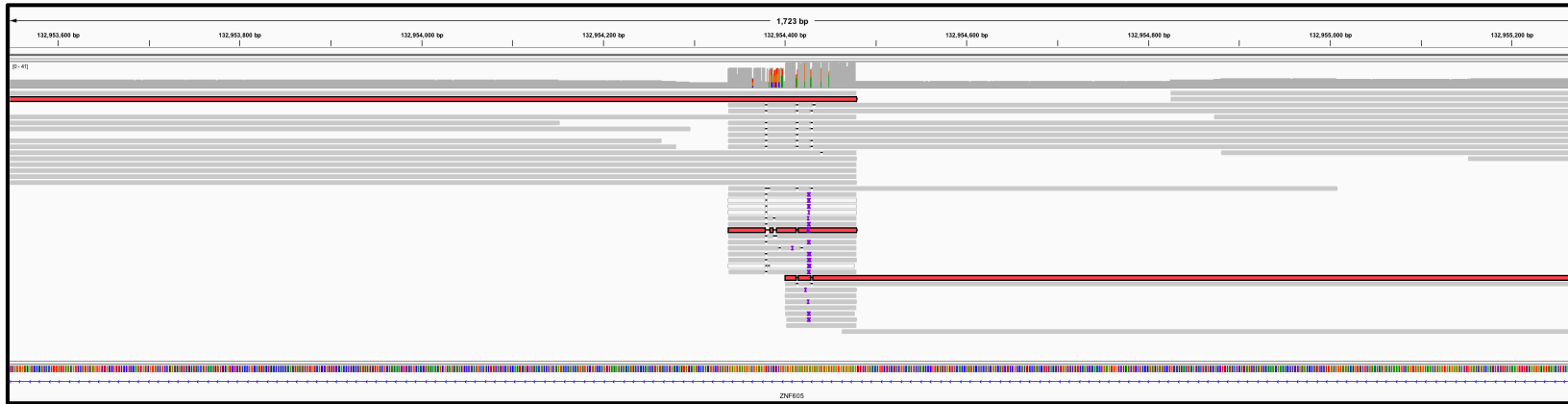# chr15-91438350-91446225
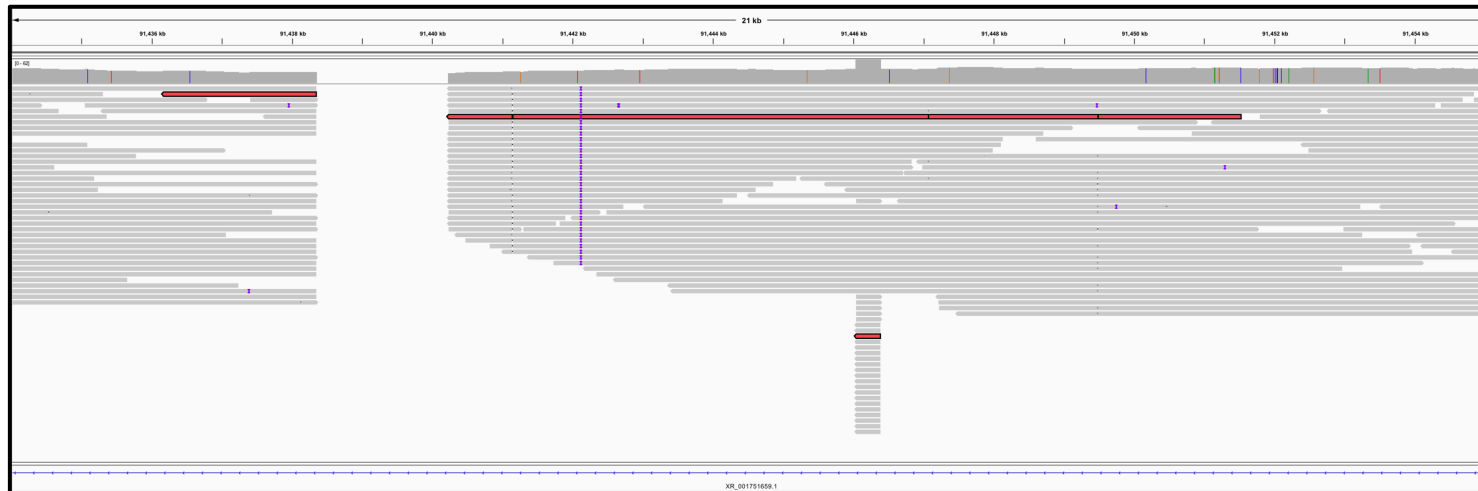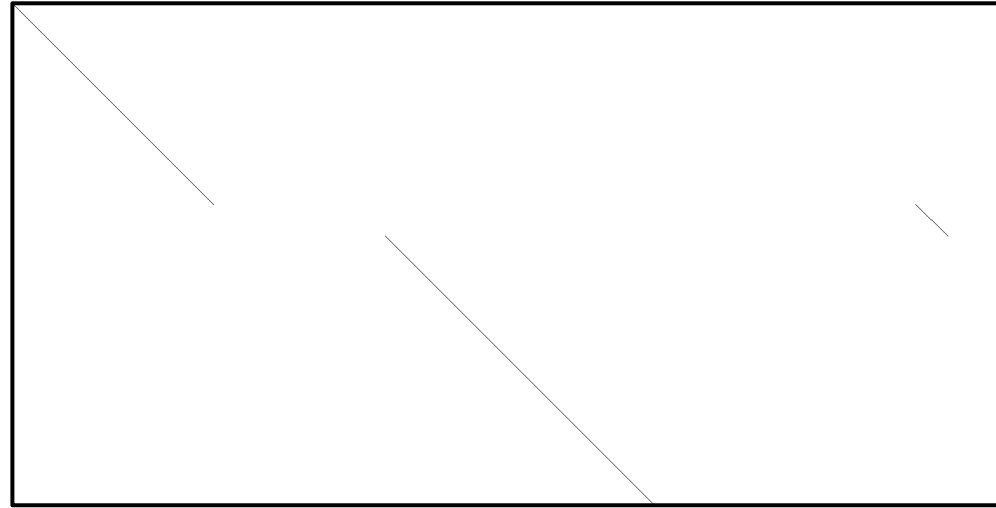
Supplementary File 2
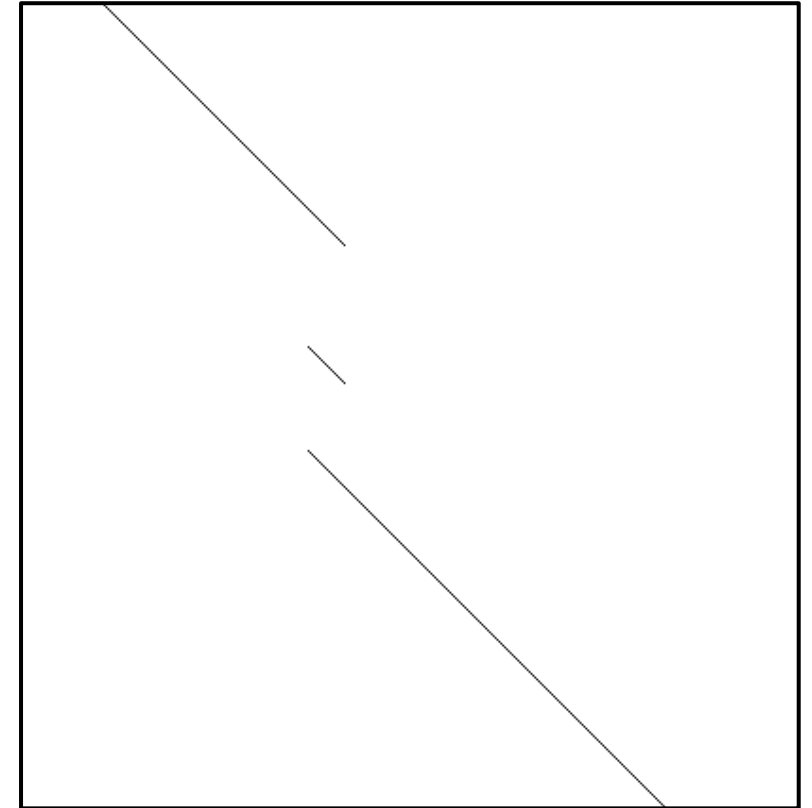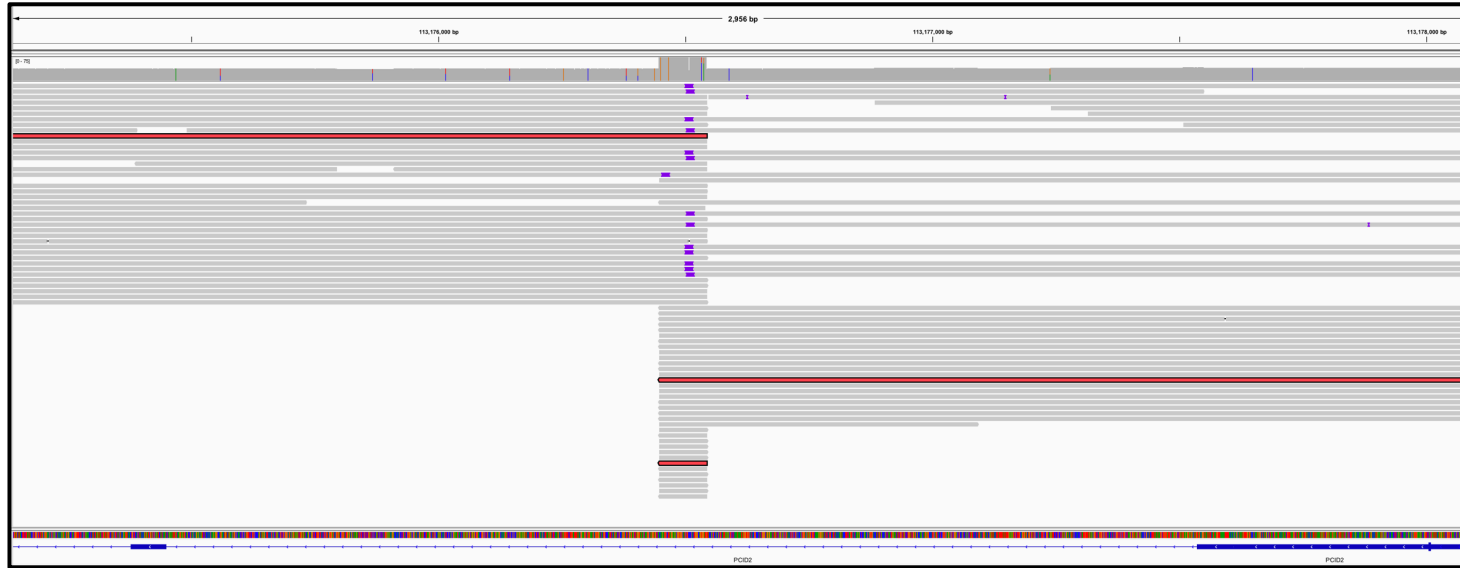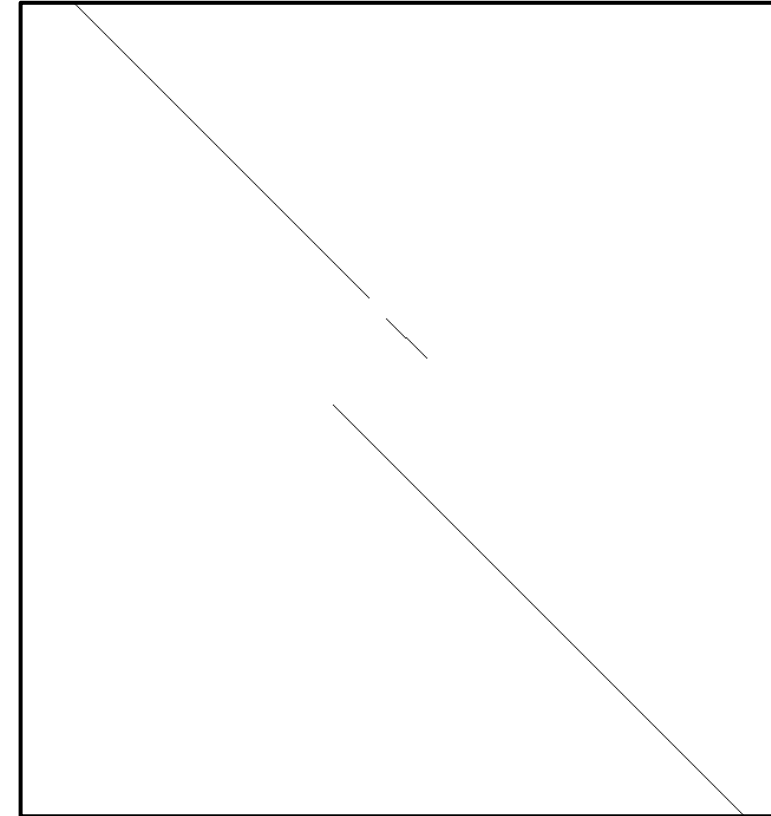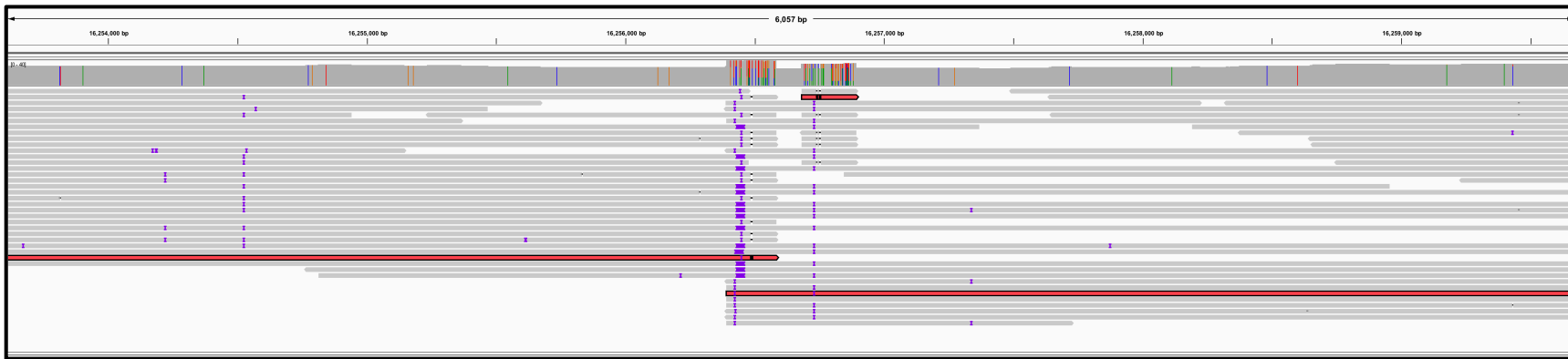
chr22-18136755-18146780
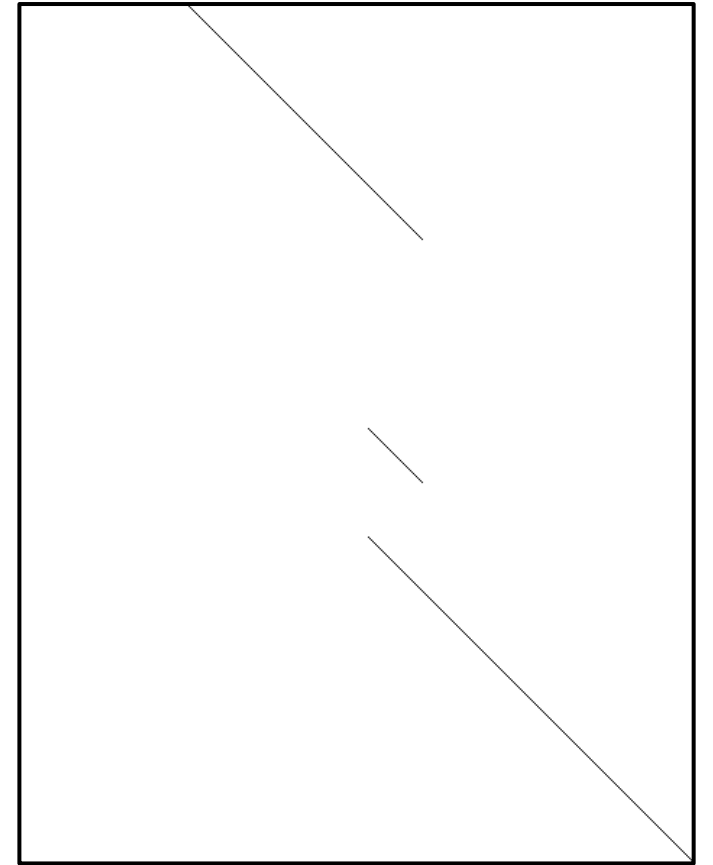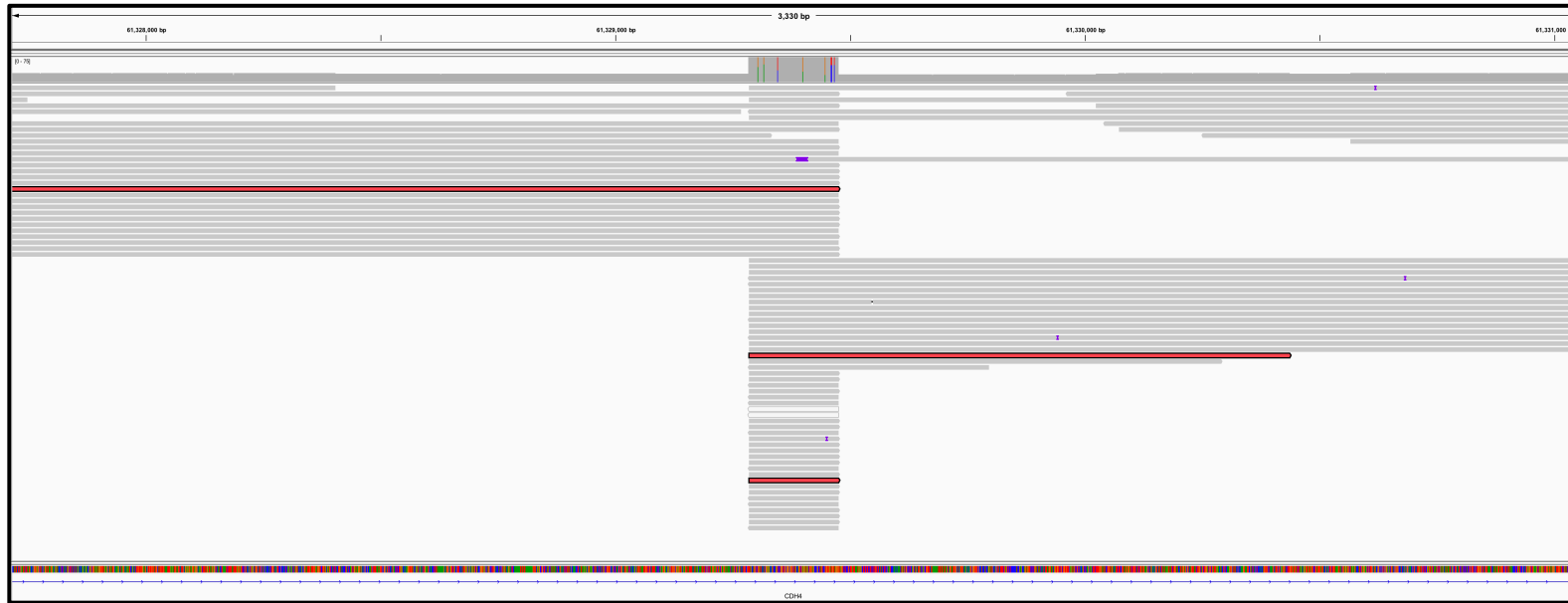

Supplementary File 2

GraphID-2

Nodes=S:2,I:4,D:2
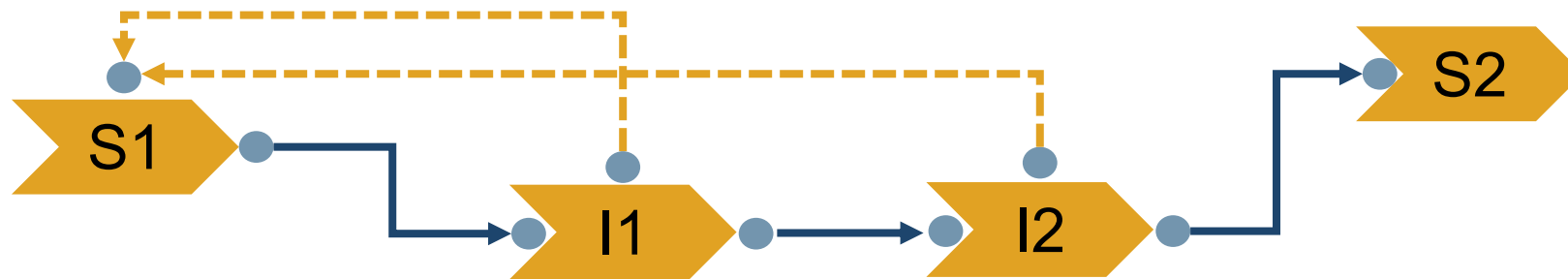
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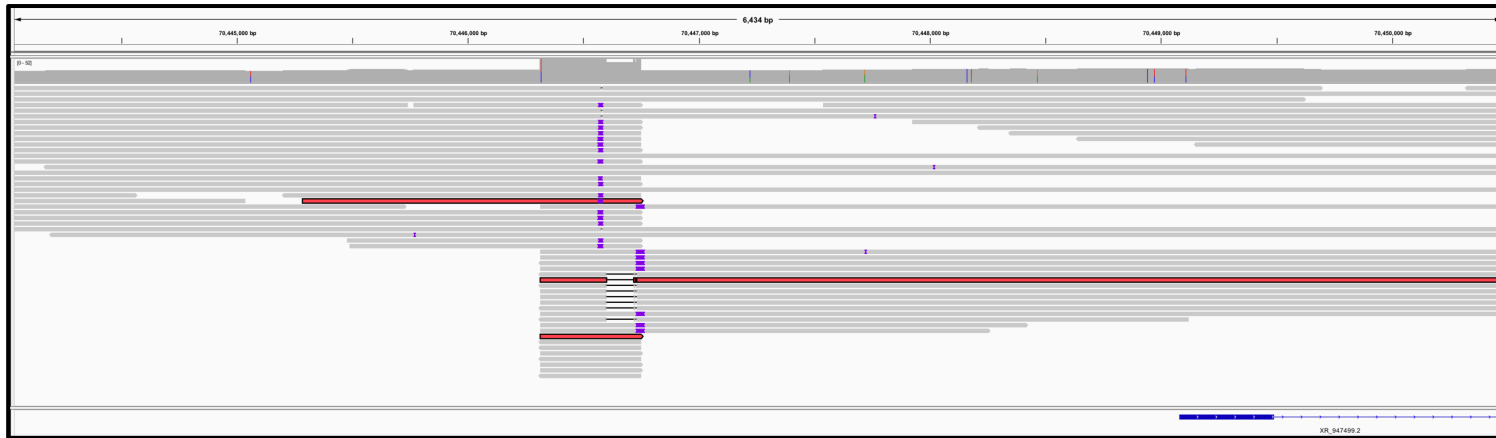
chr19-16256389-16256892

❖ chr20-61329281-61329476-16518-10

GraphID-4

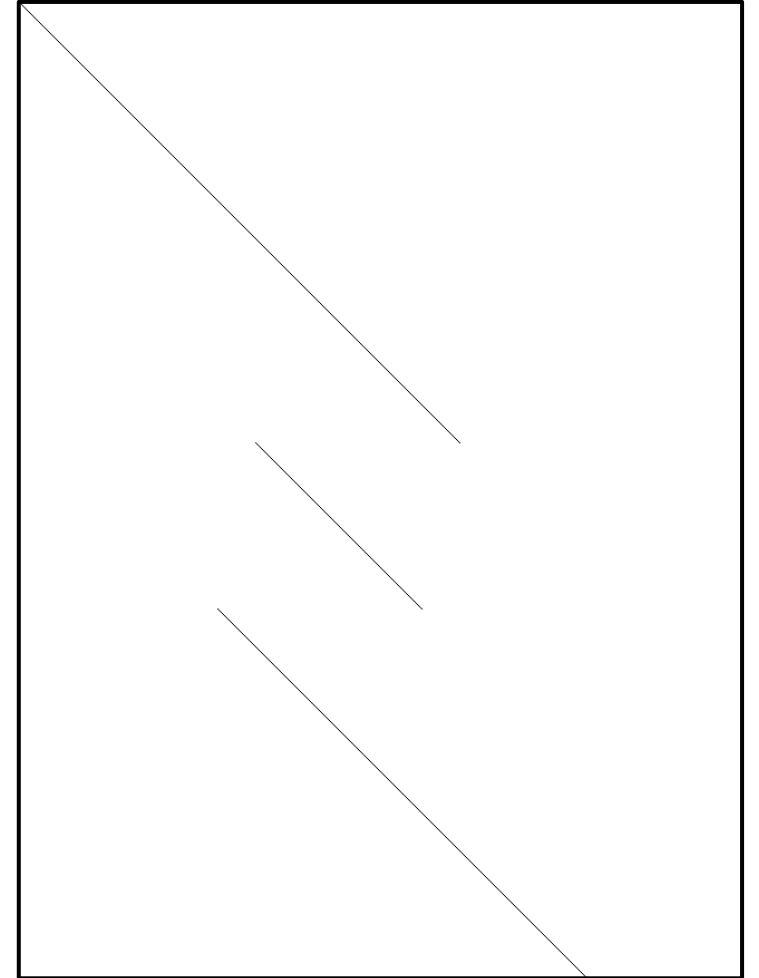

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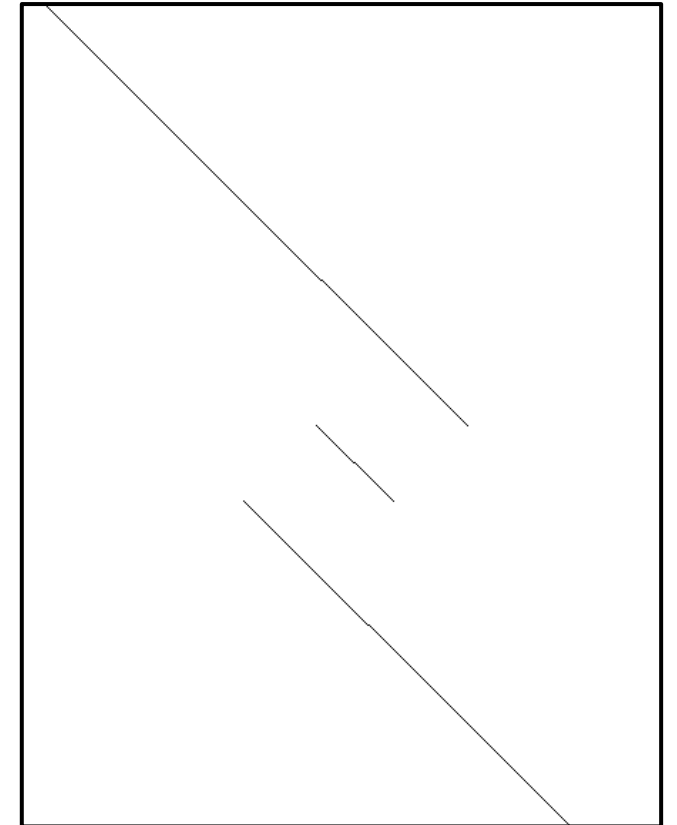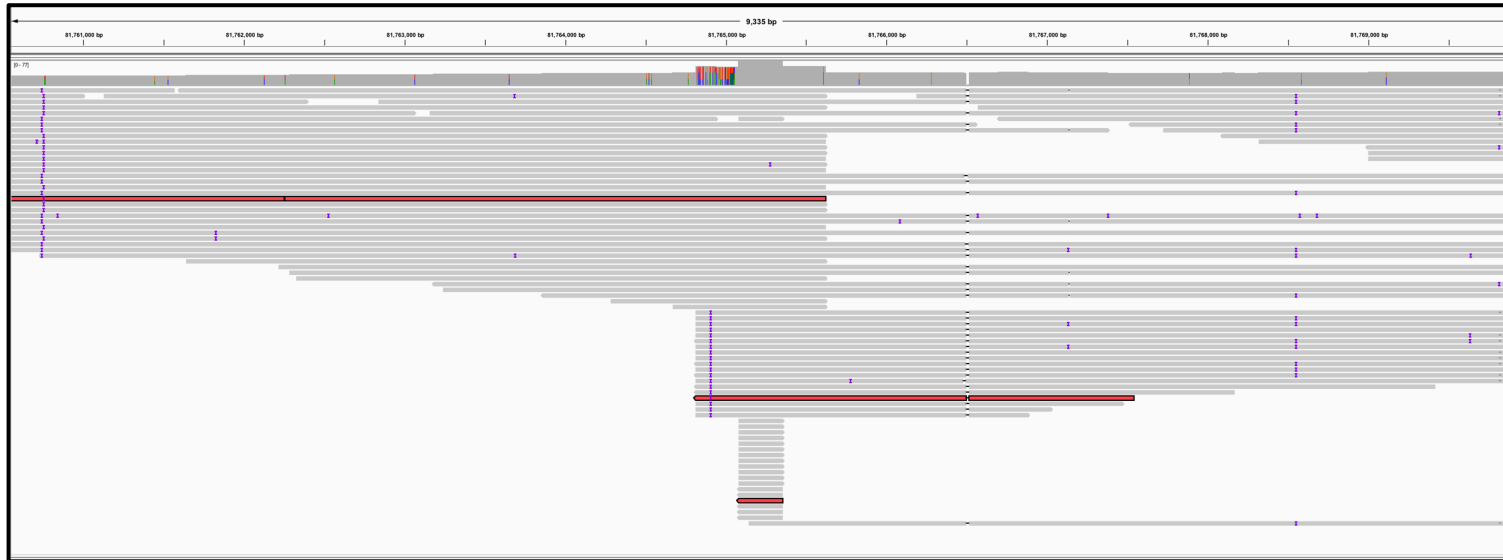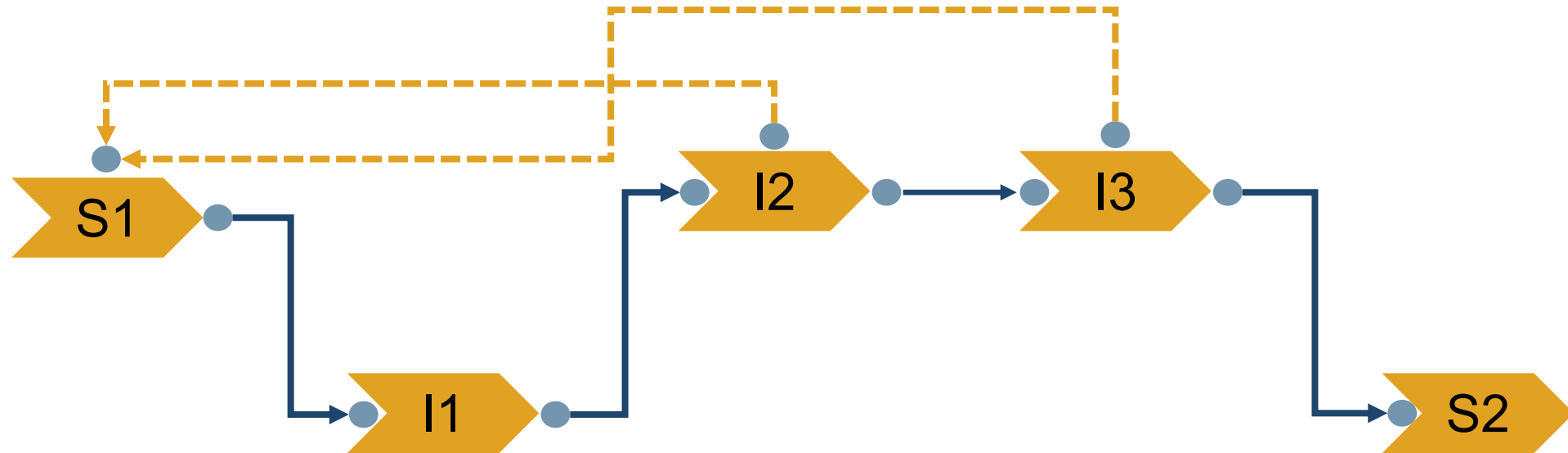# chr1-70446312-70446751
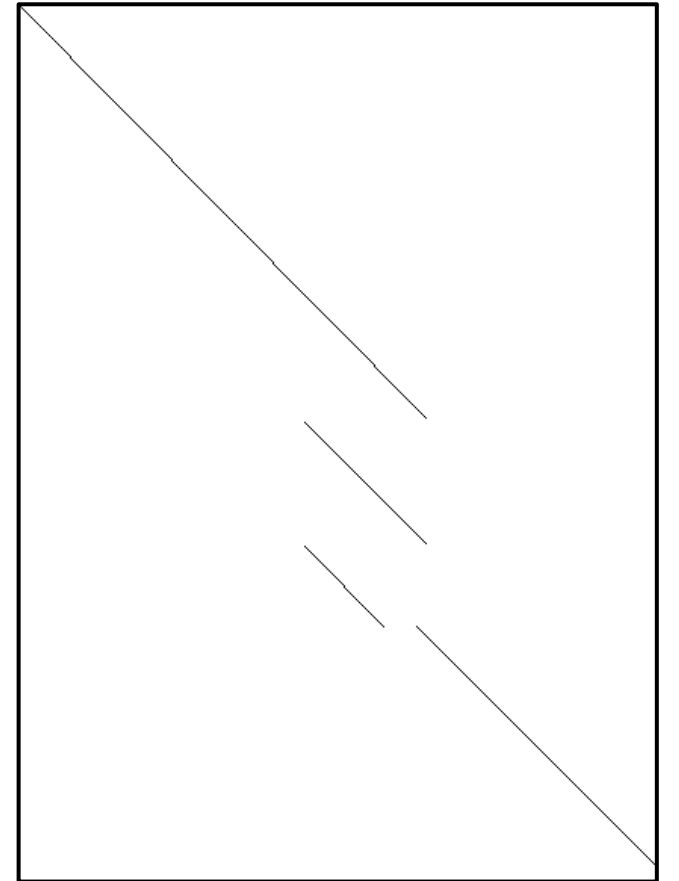
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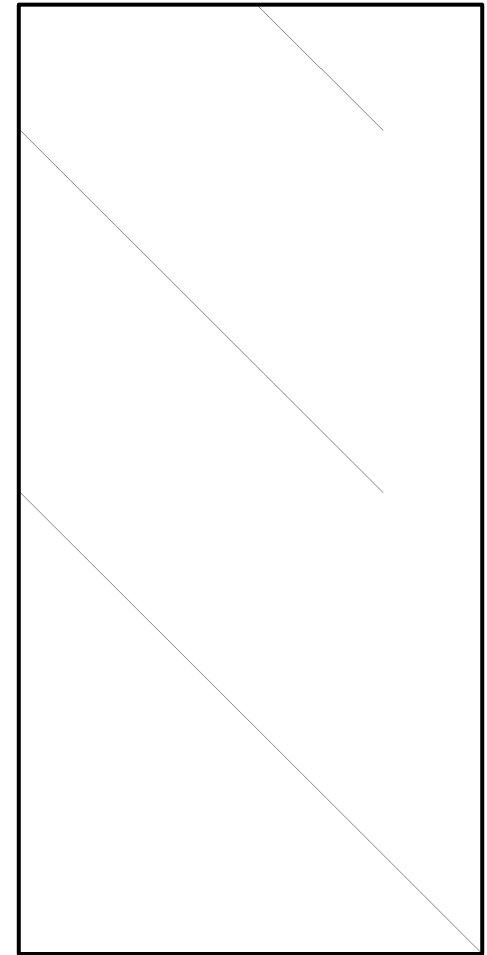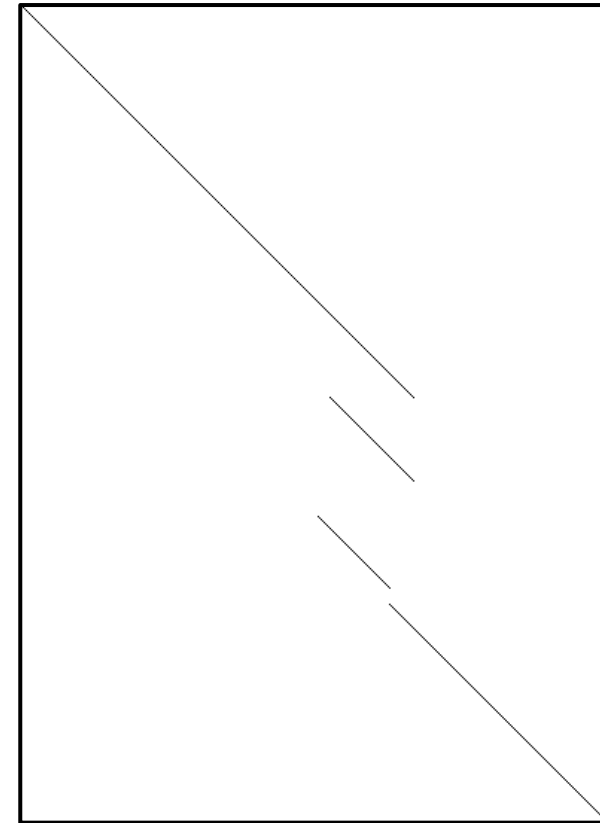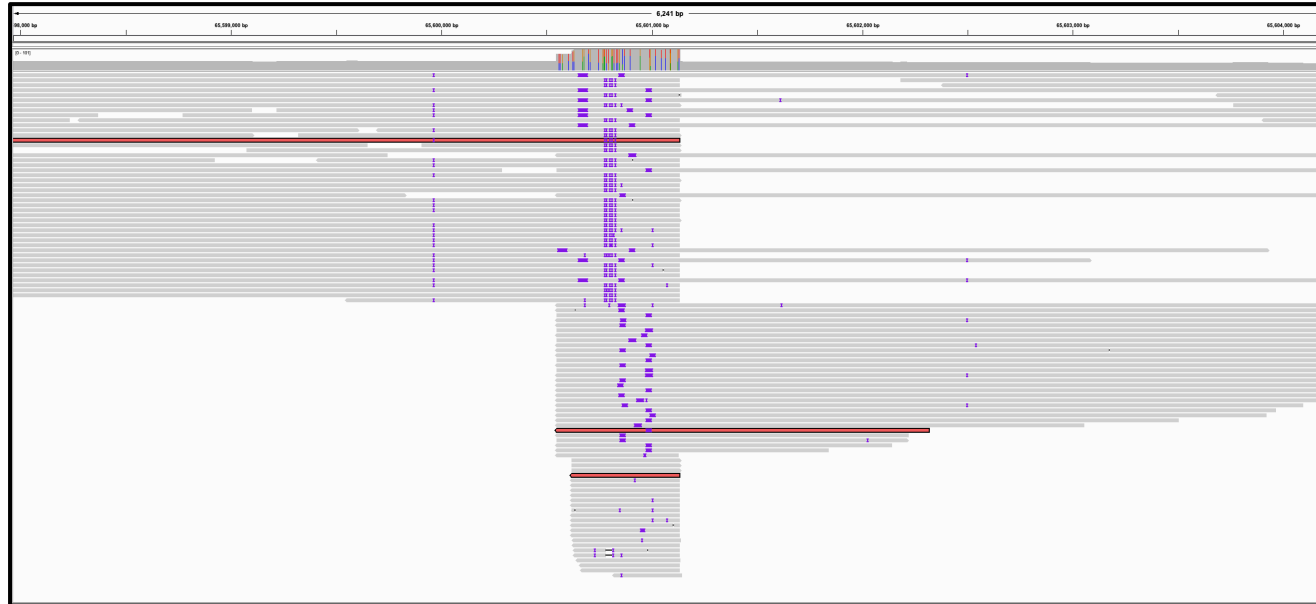
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chr16-81764812-81765622

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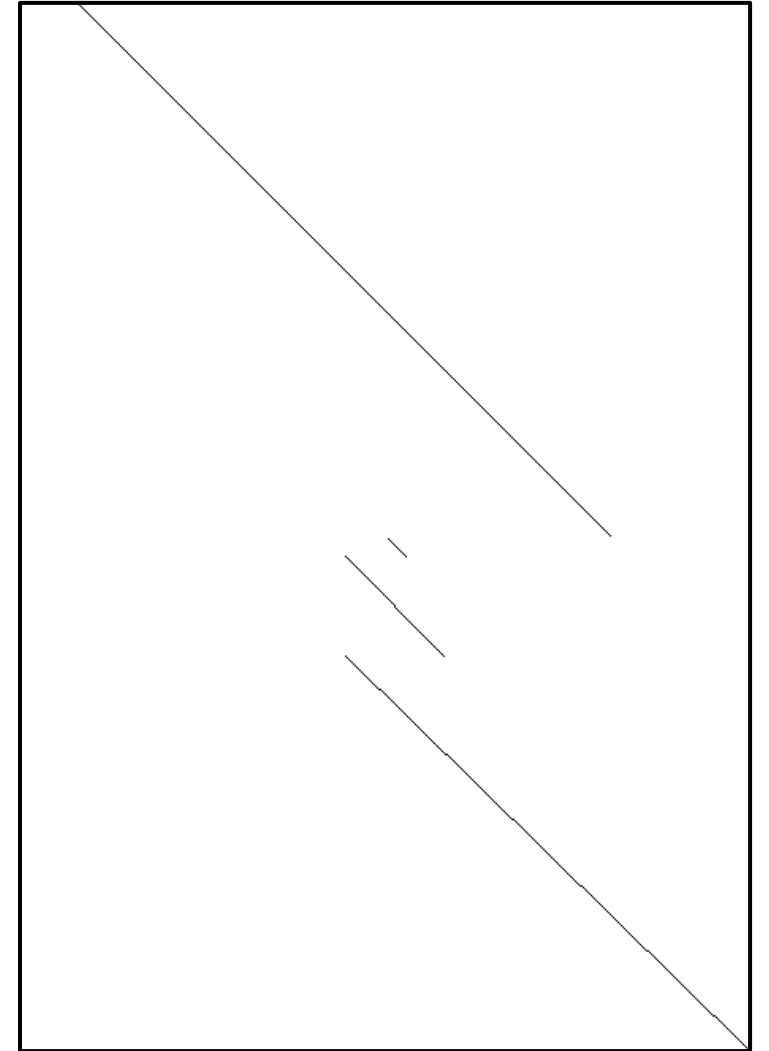
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GraphID-8

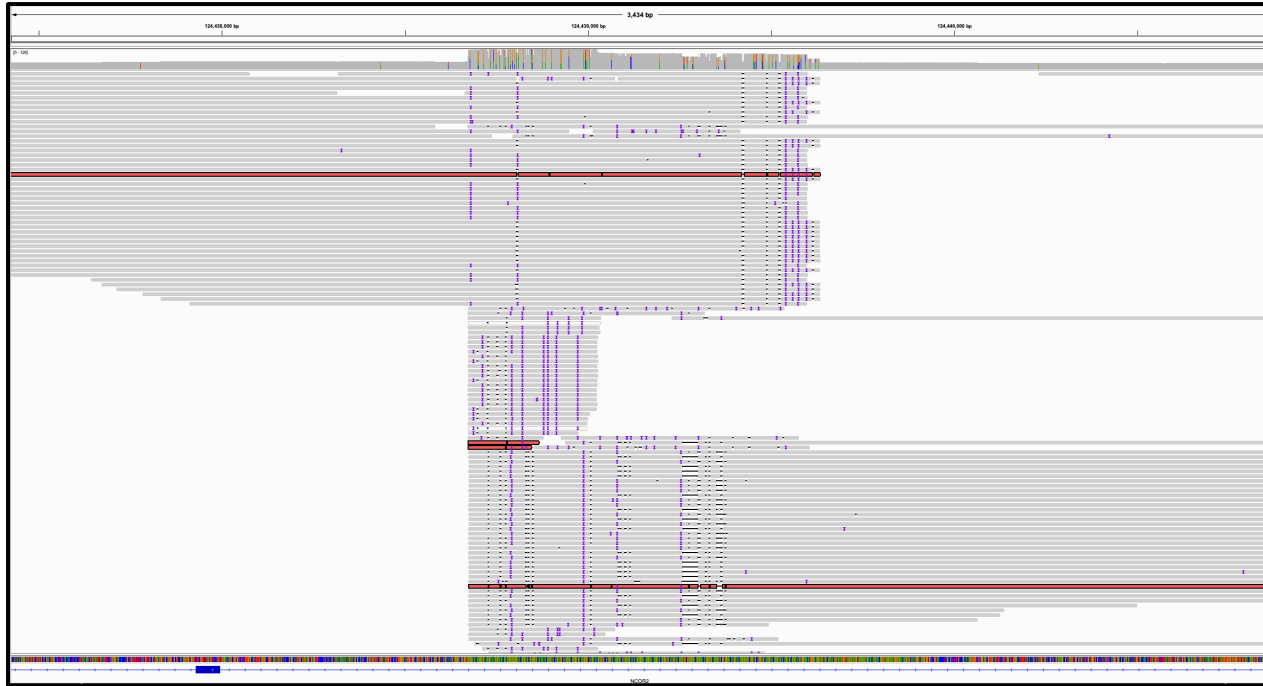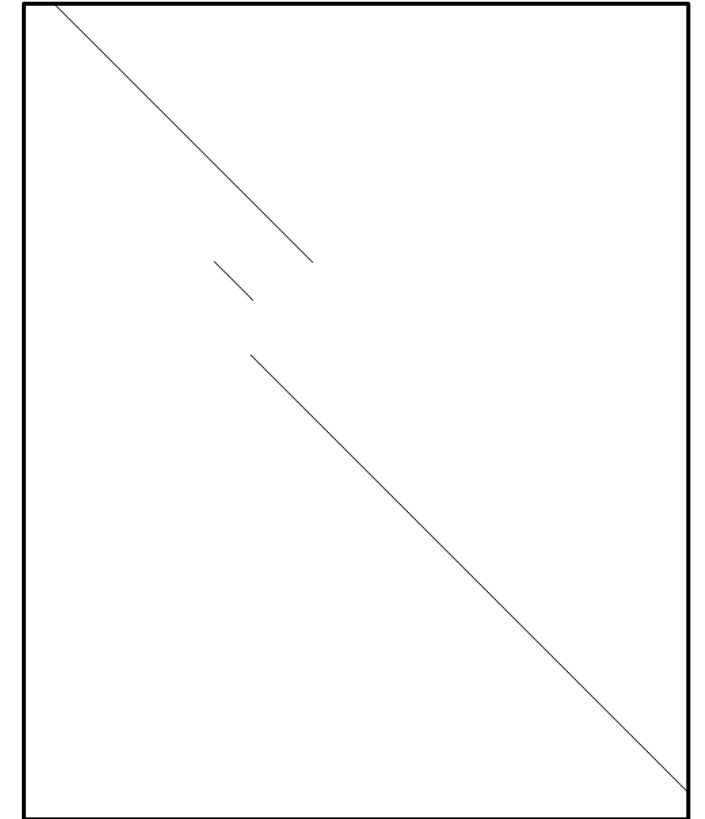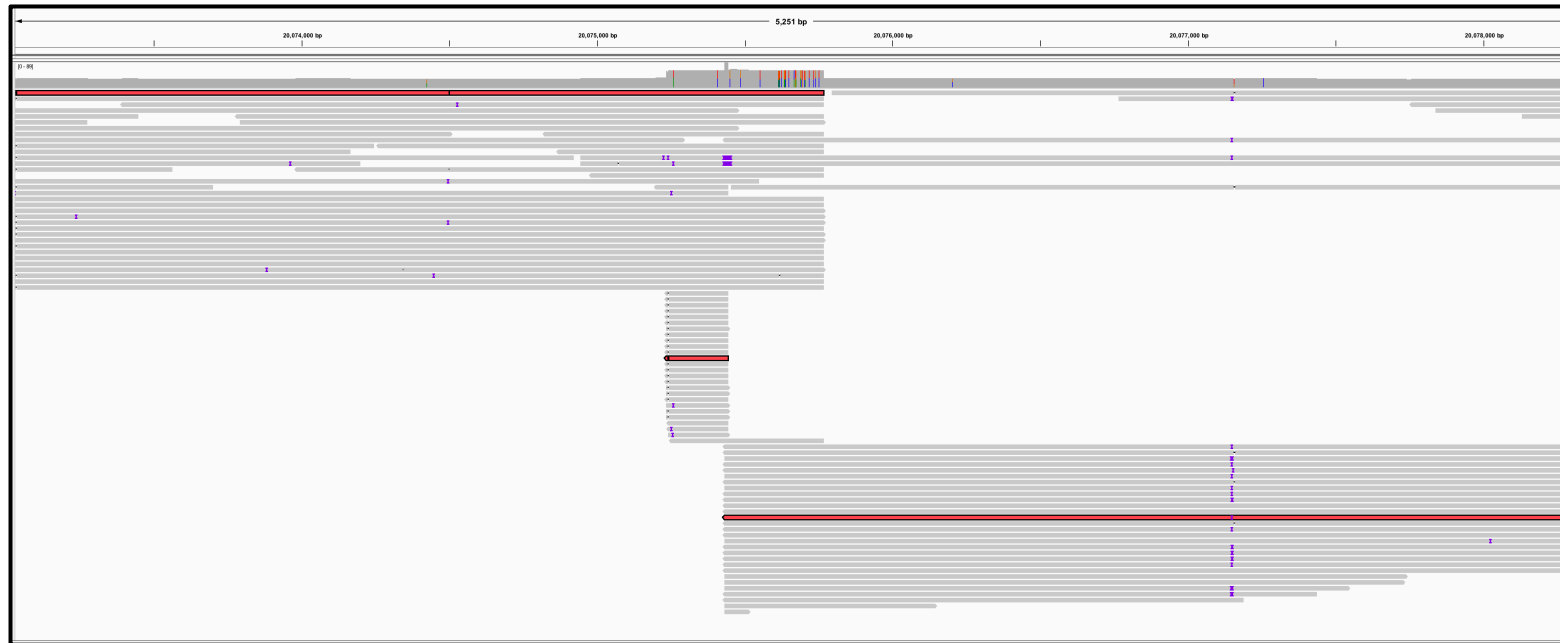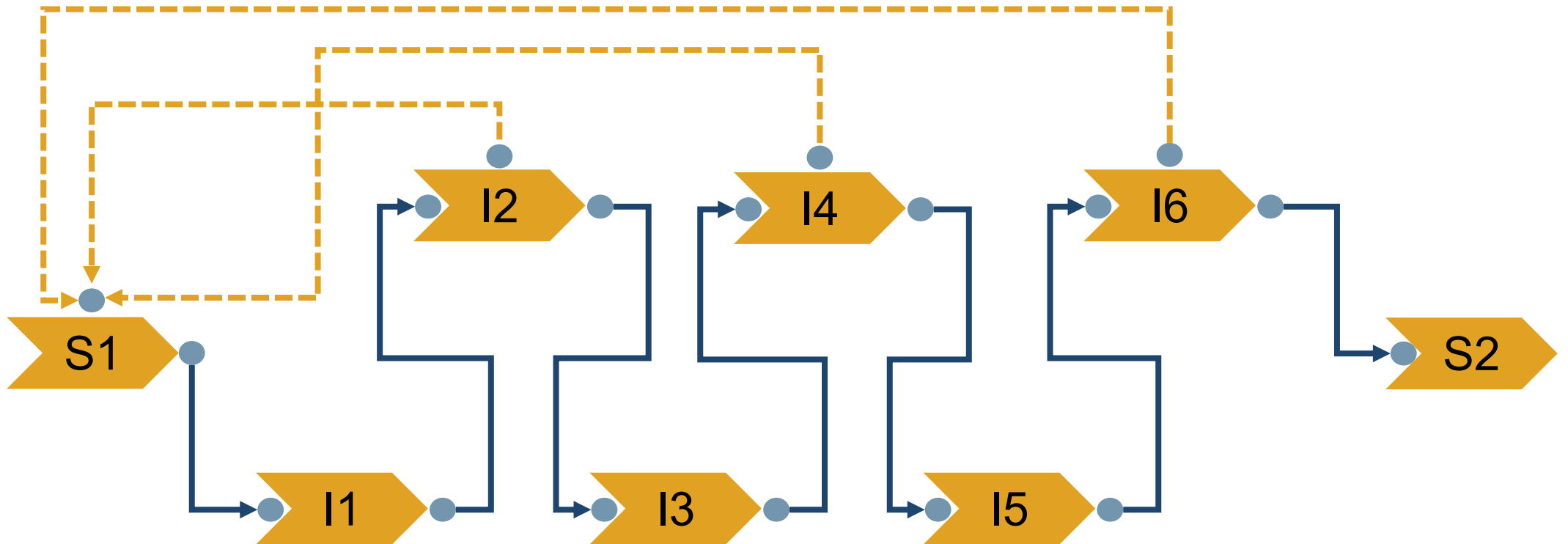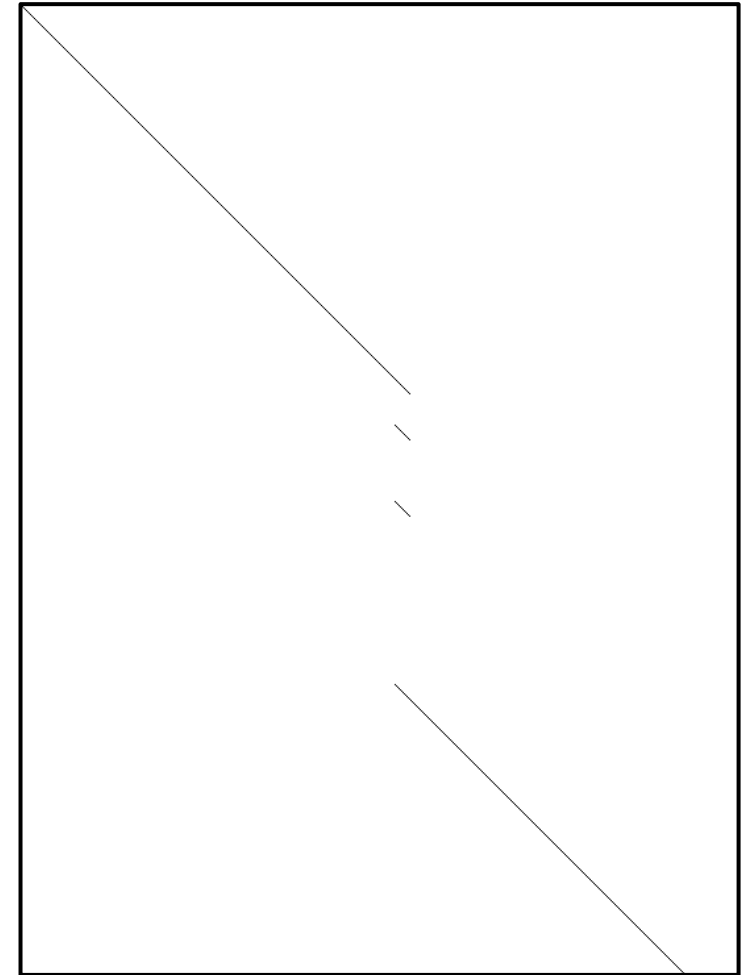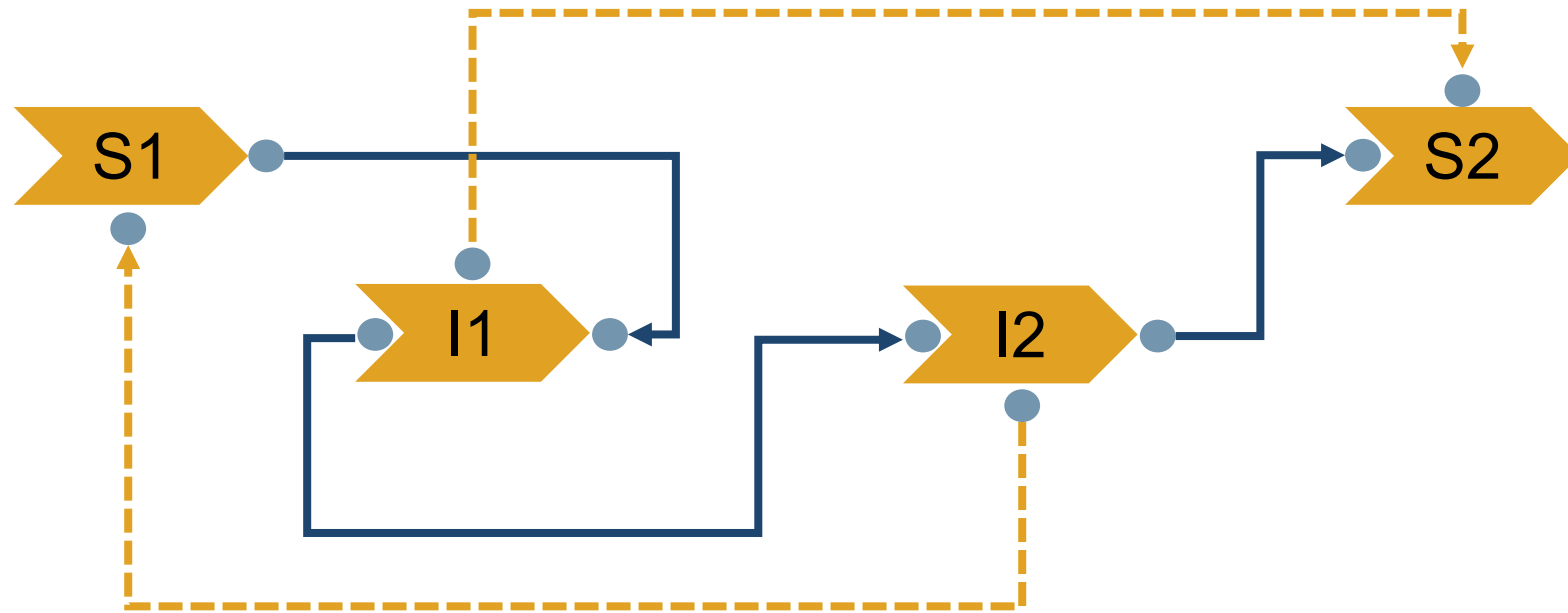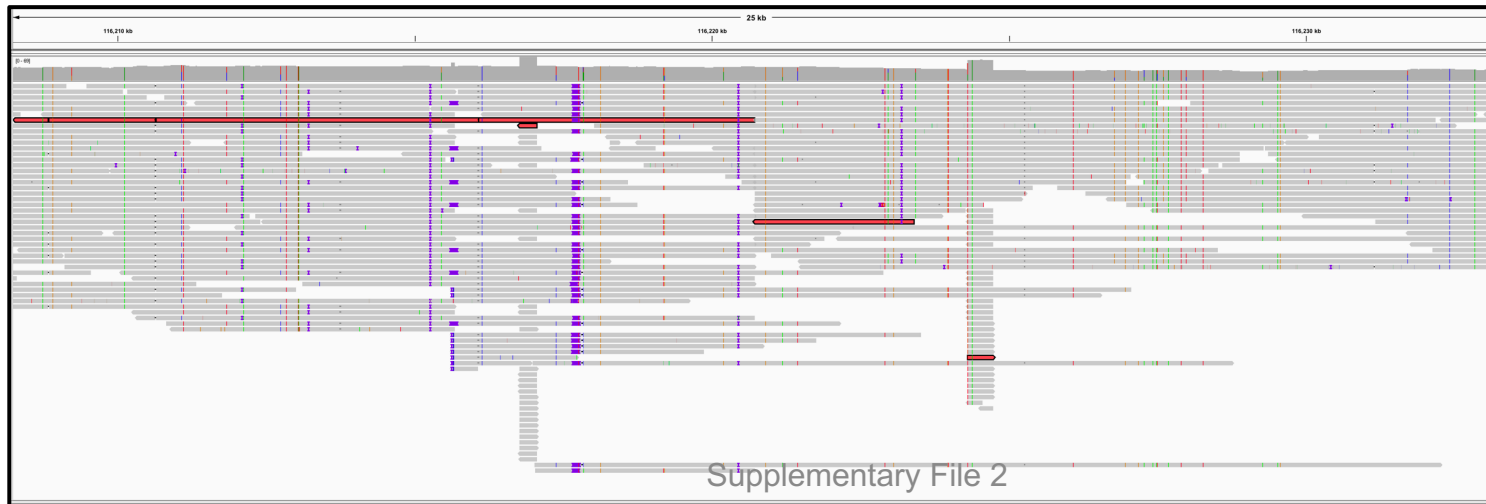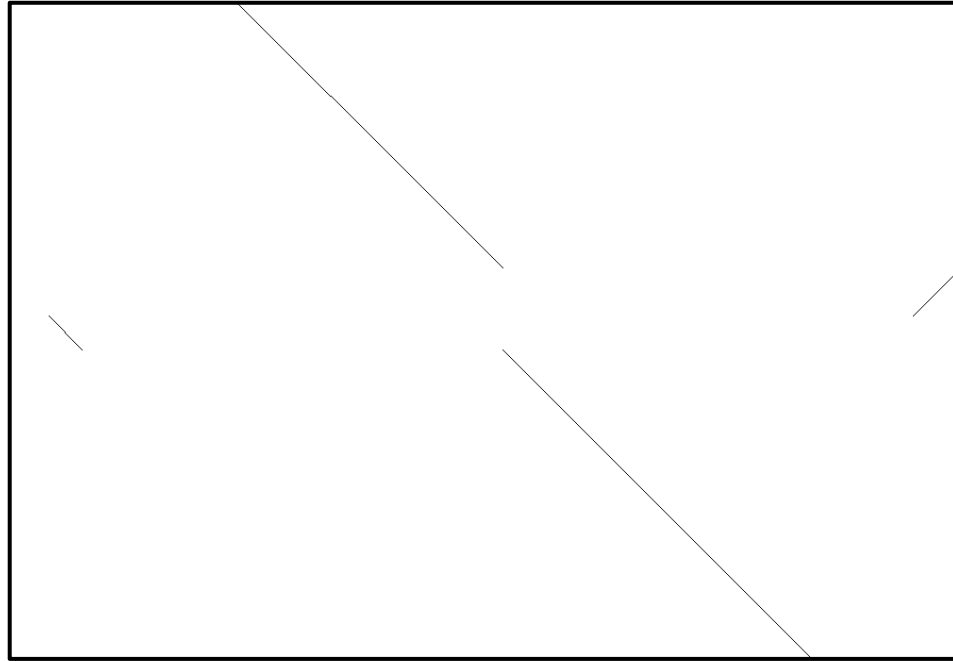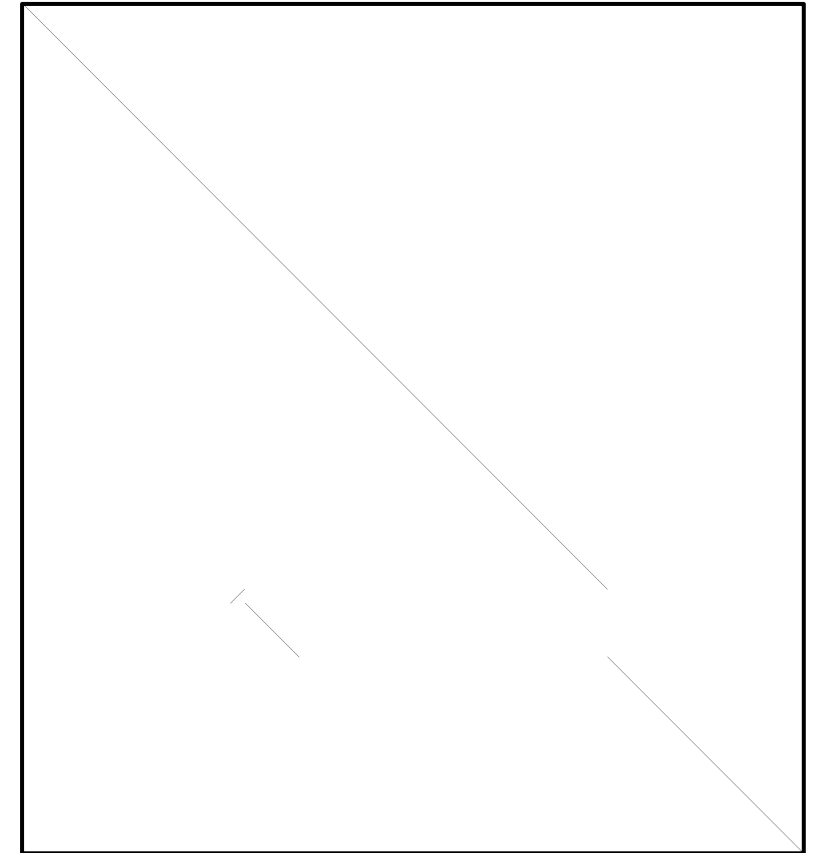Nodes=S:2,I:6,D:3

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GraphID-14
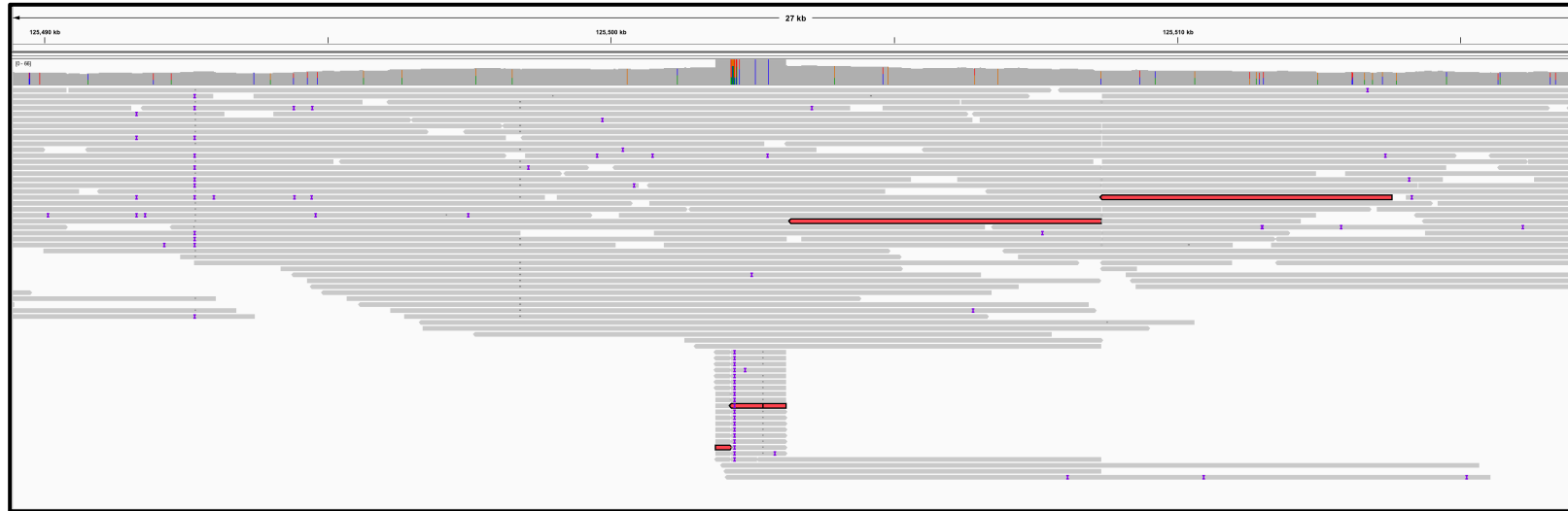

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chr2-116216766-116224724

Supplementary File 2

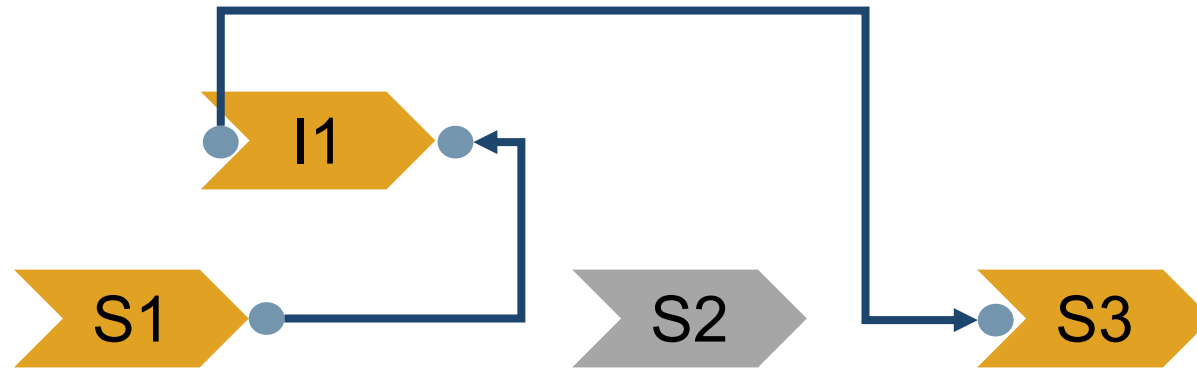# ❖ chr10-125502145-125508663

❖ chr13-88458707-88460622

Supplementary File 2
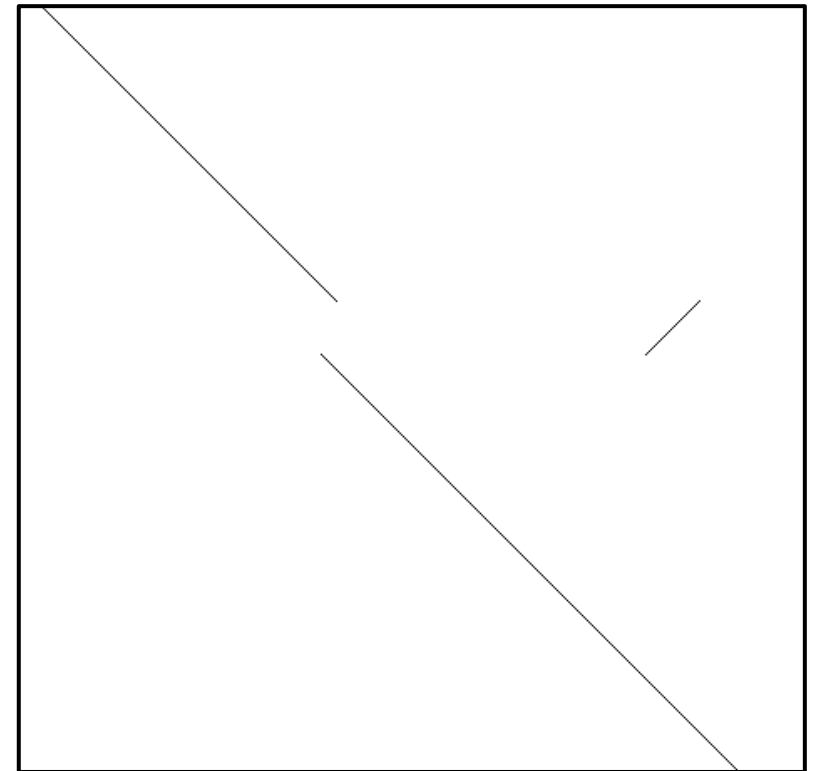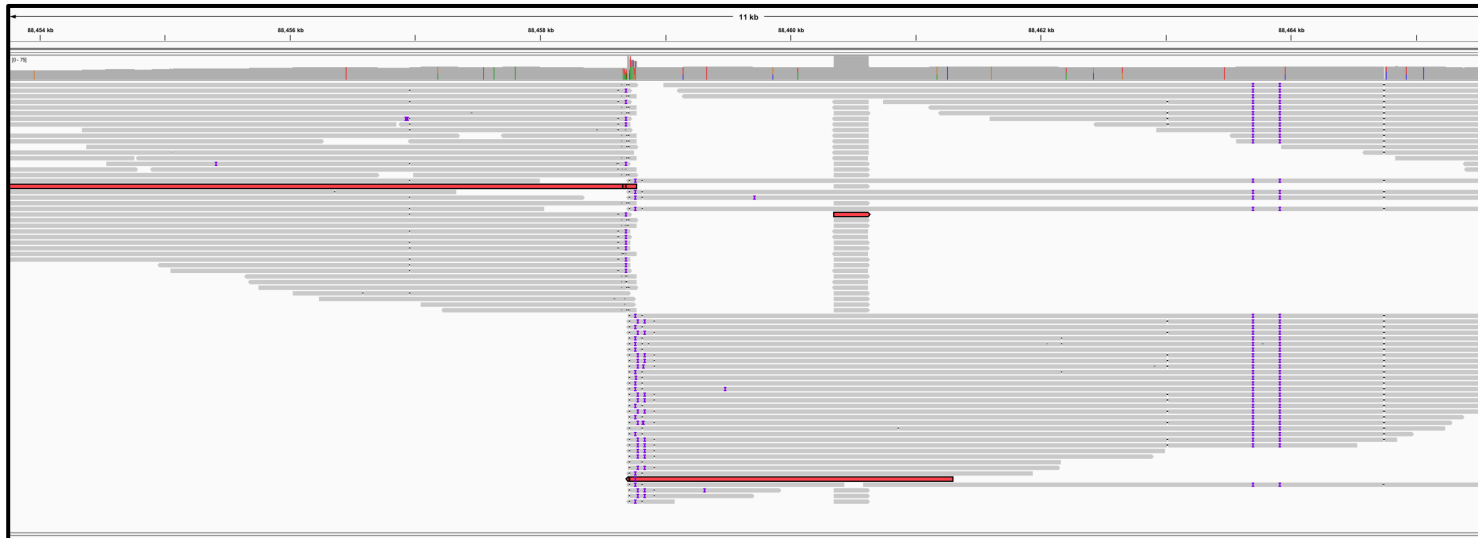
GraphID-10

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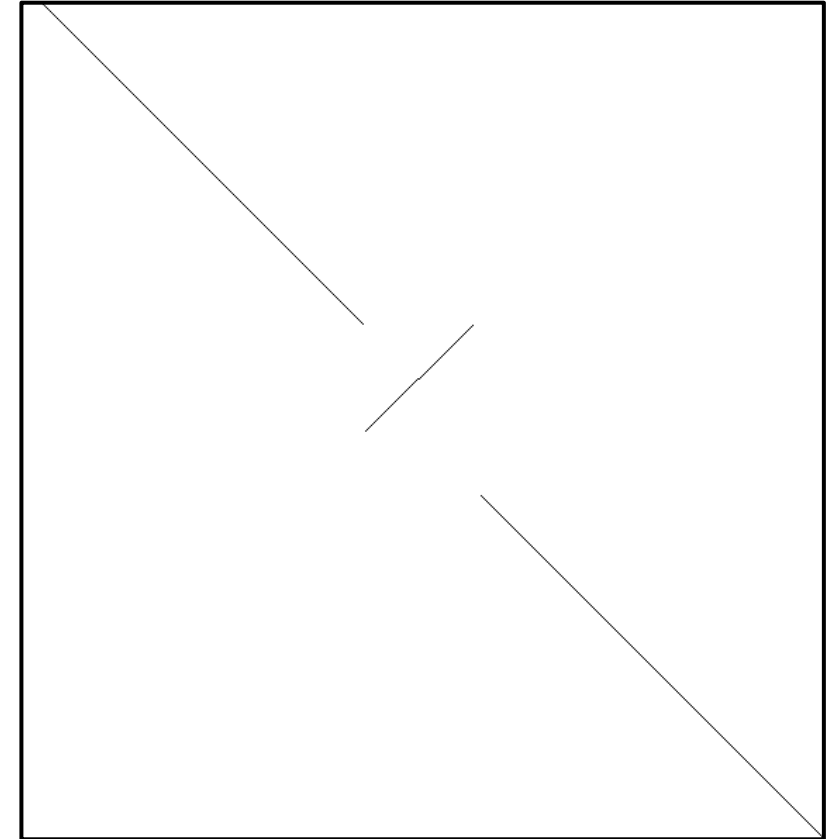
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❖ chr6-89213914-89214231

chr6-94031356-94031699

GraphID-22

Nodes=S:2,I:2,D:1

❖ chr2-16225124-16225236

chr8-84952507-84962077

chr10-98735100-98735257

GraphID-29

Nodes=S:3,I:3,D:1

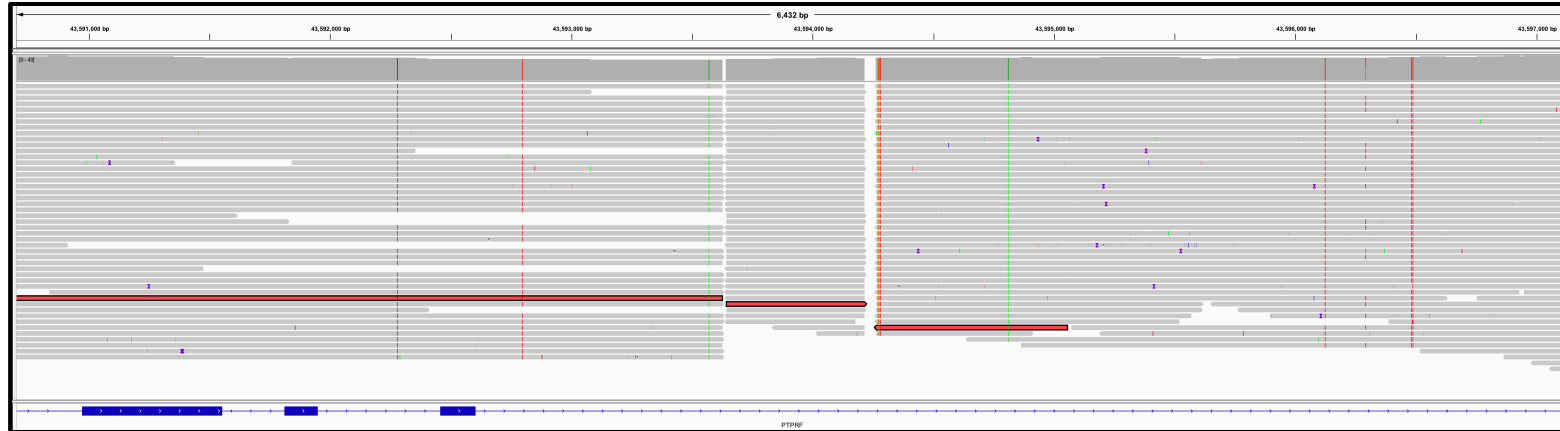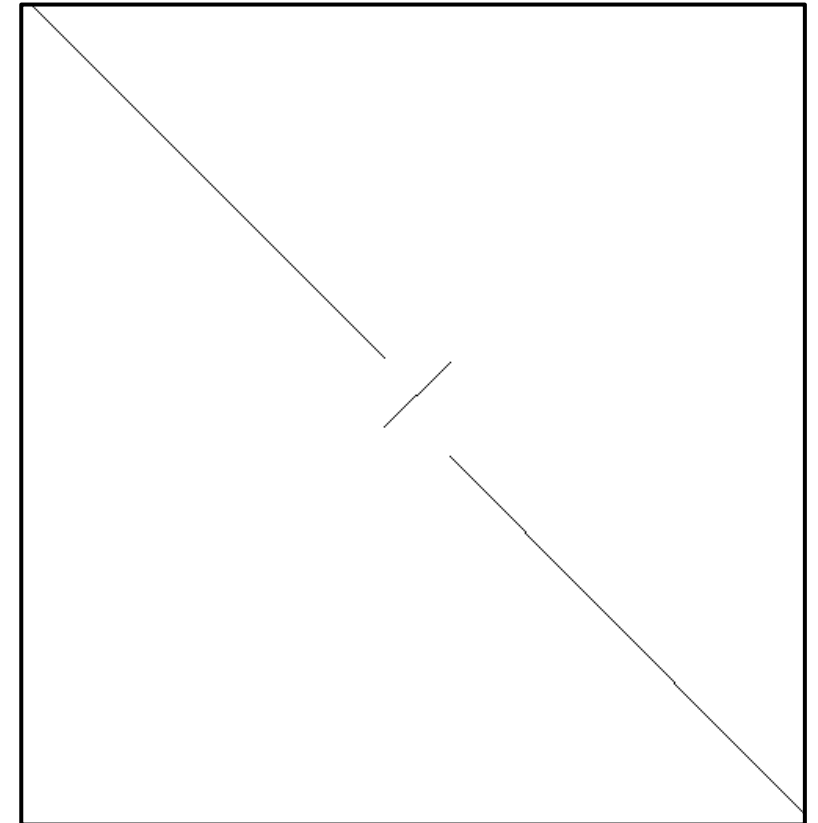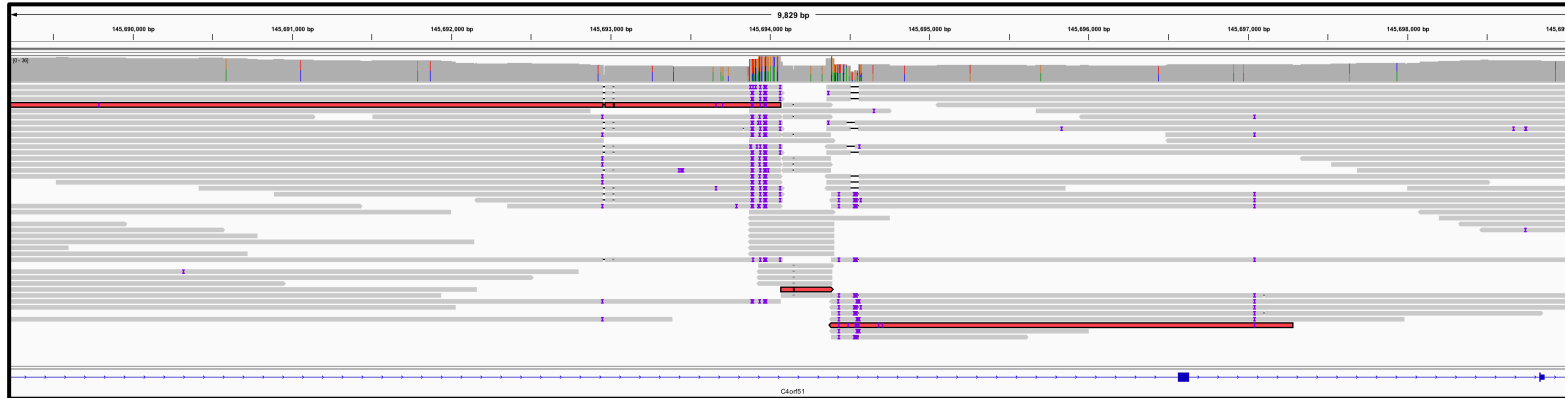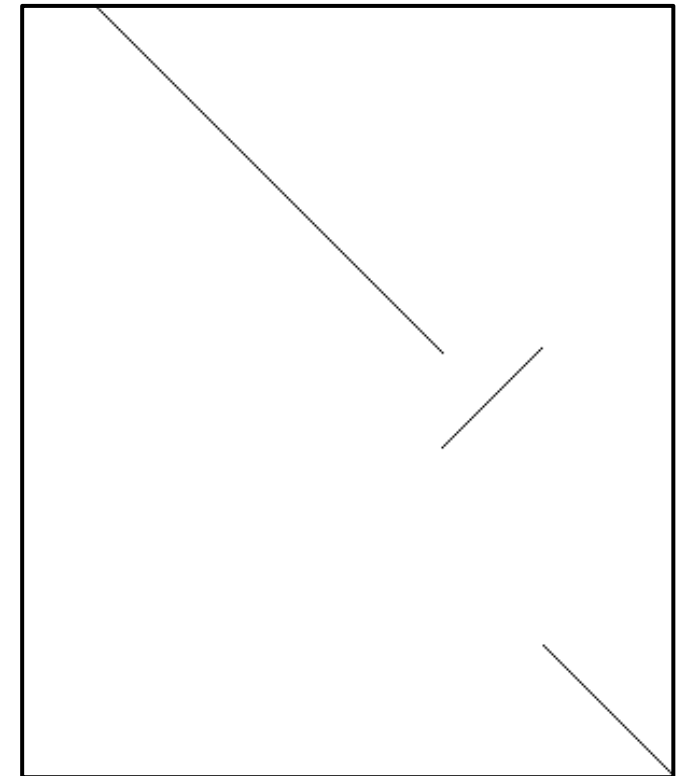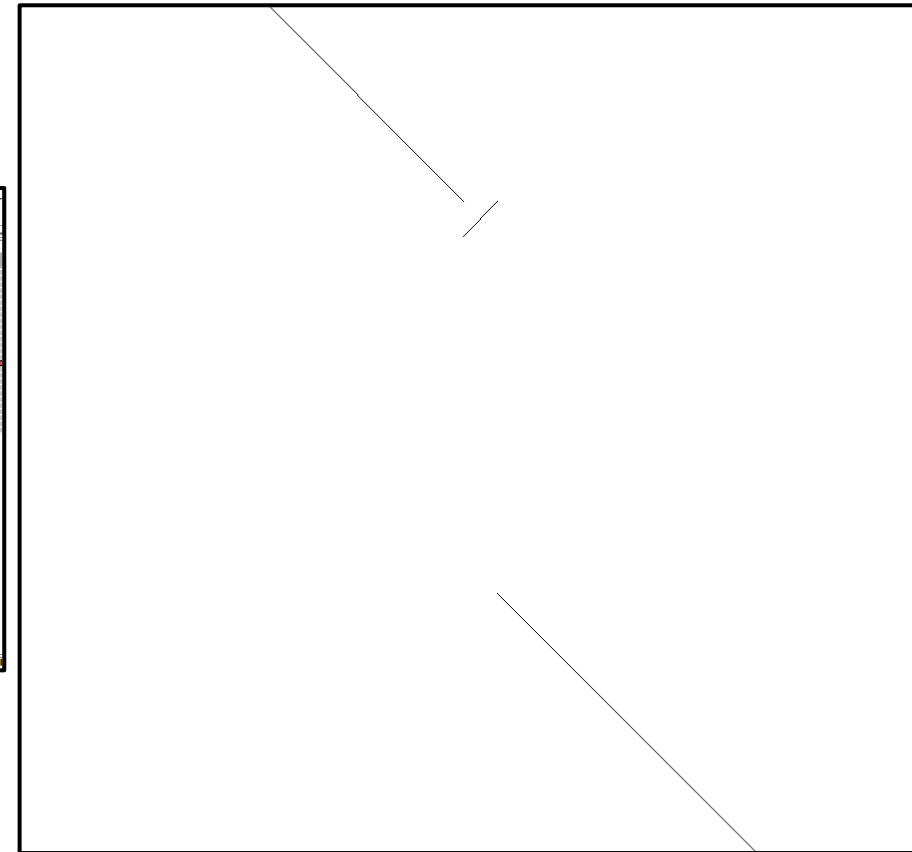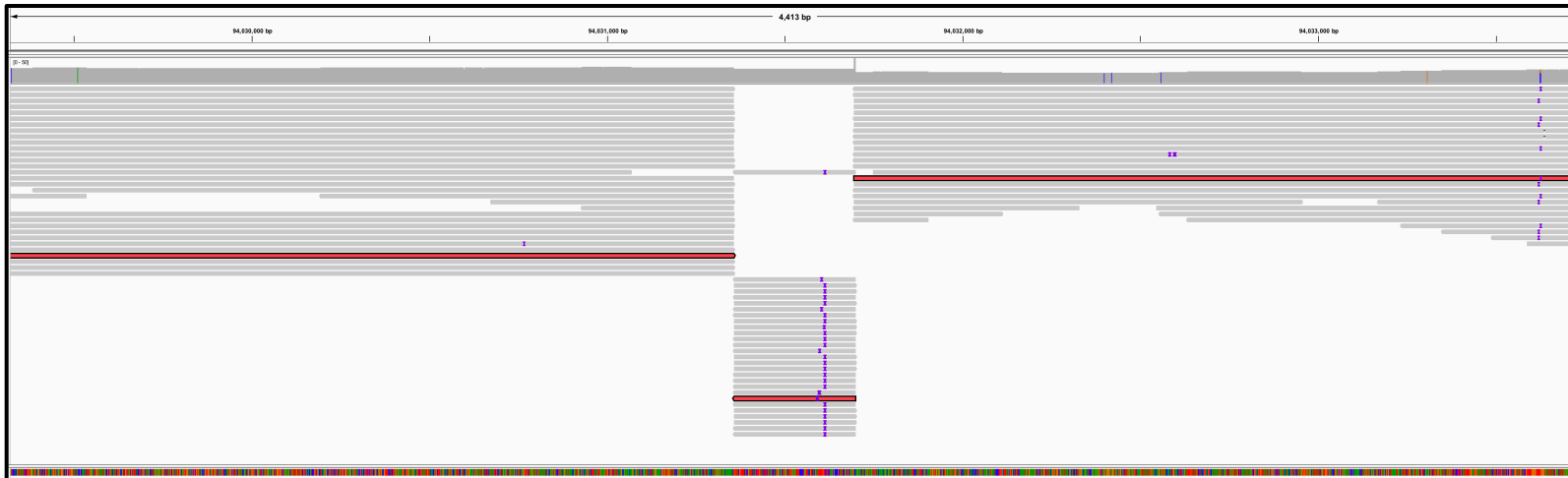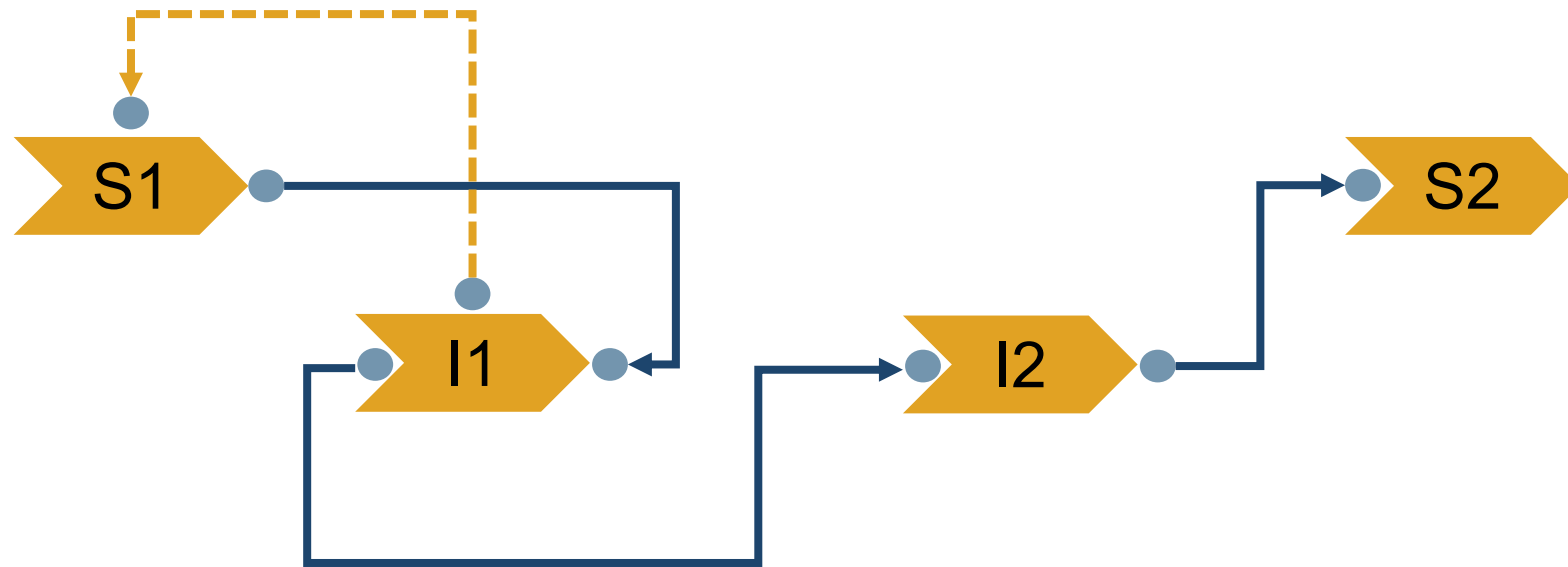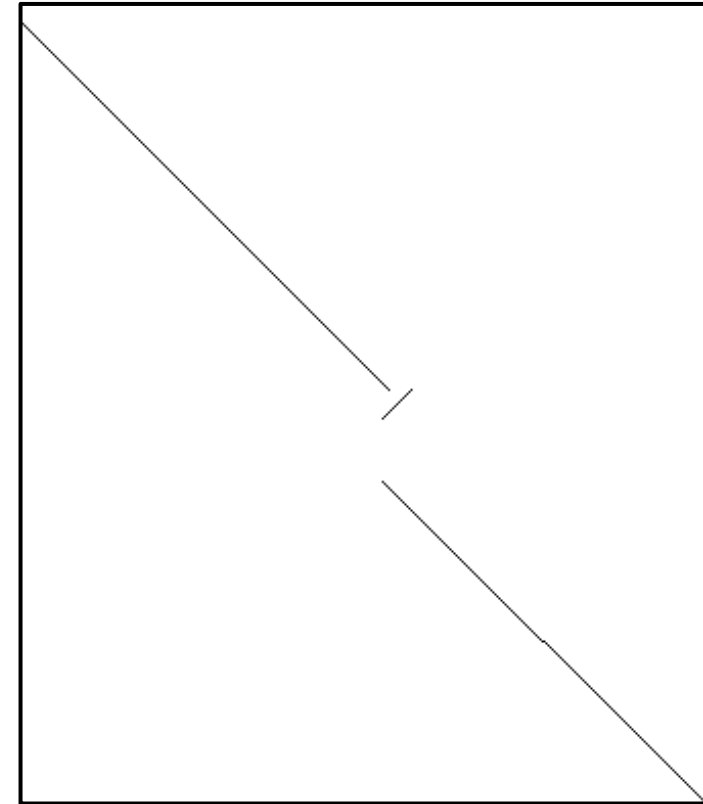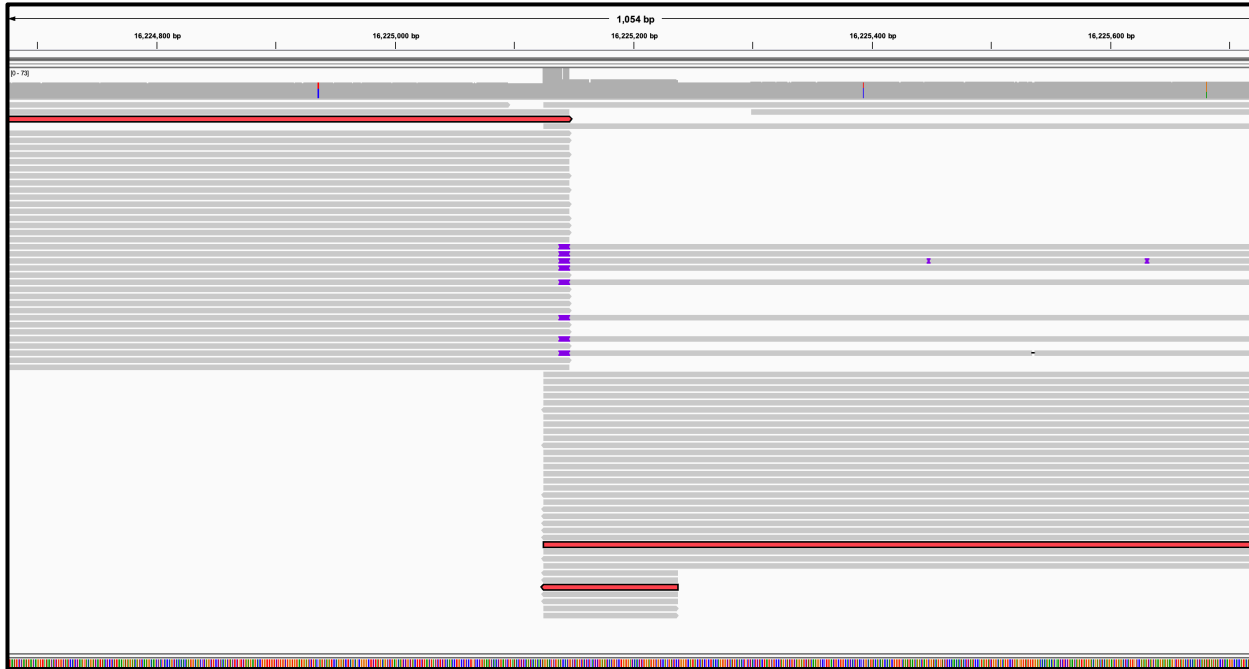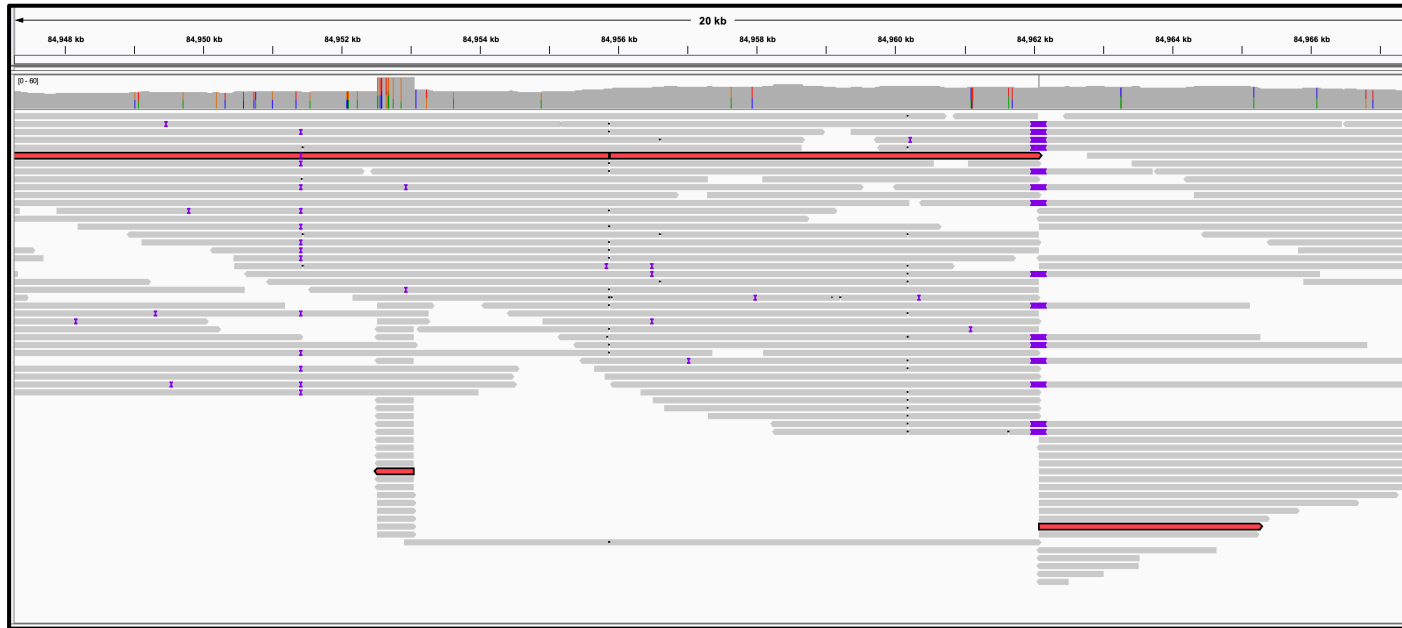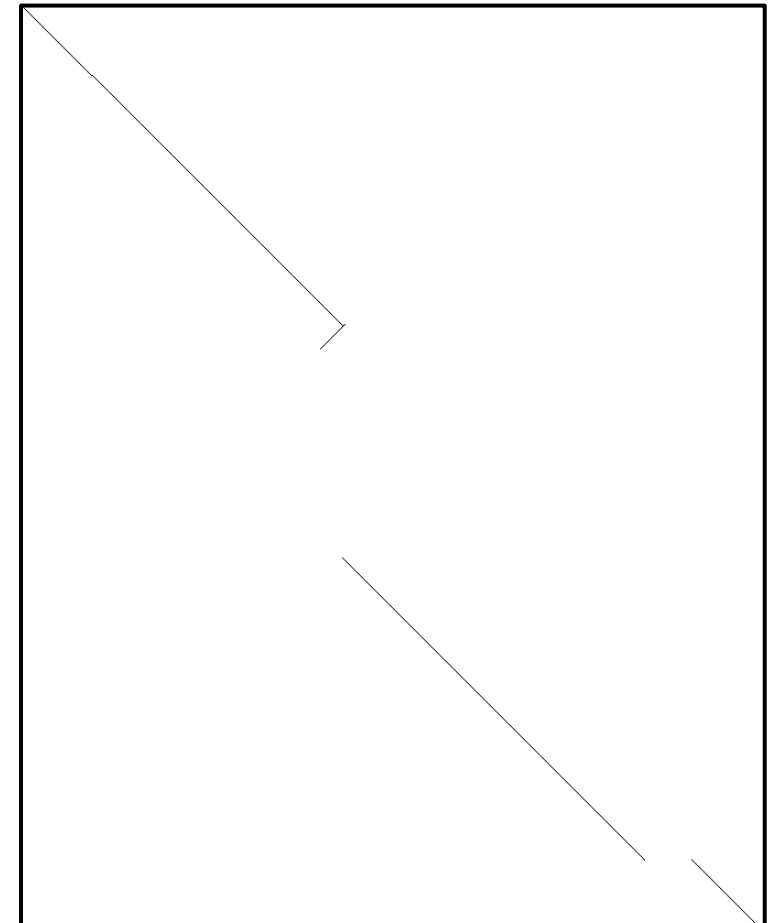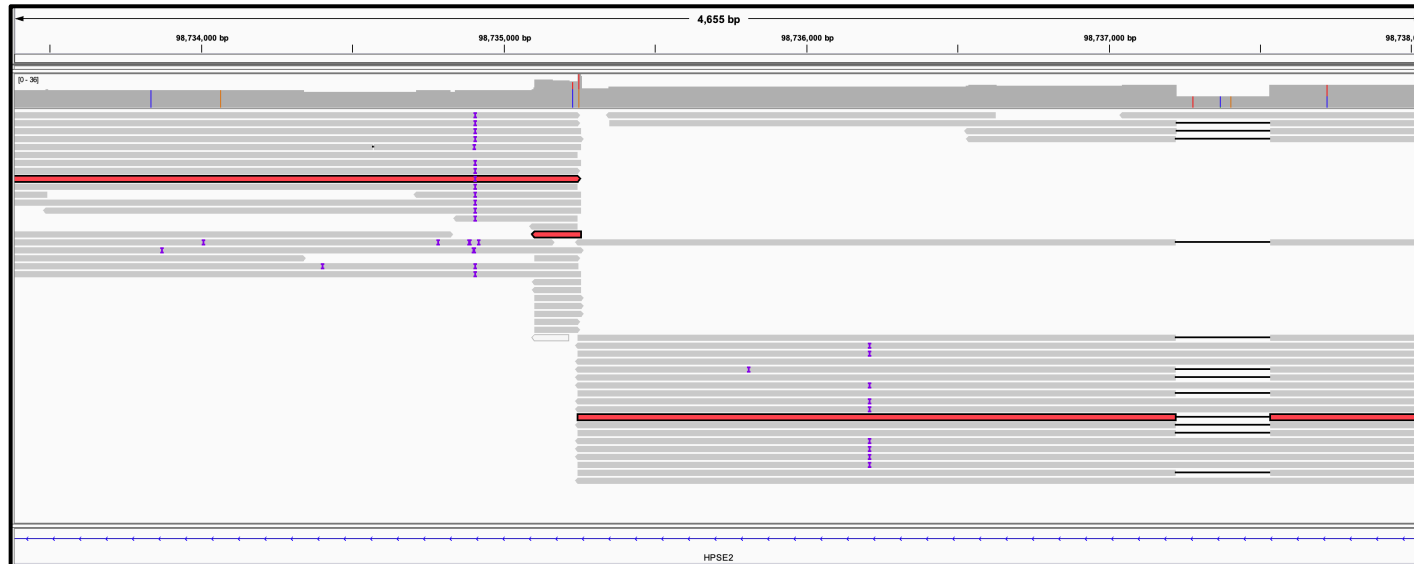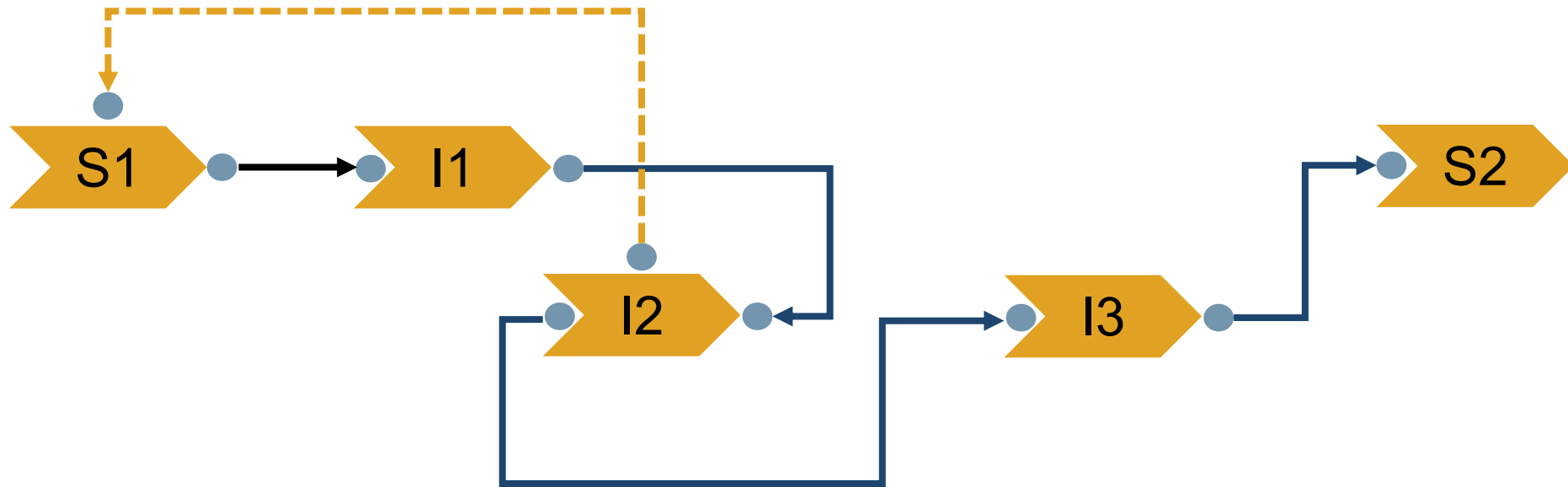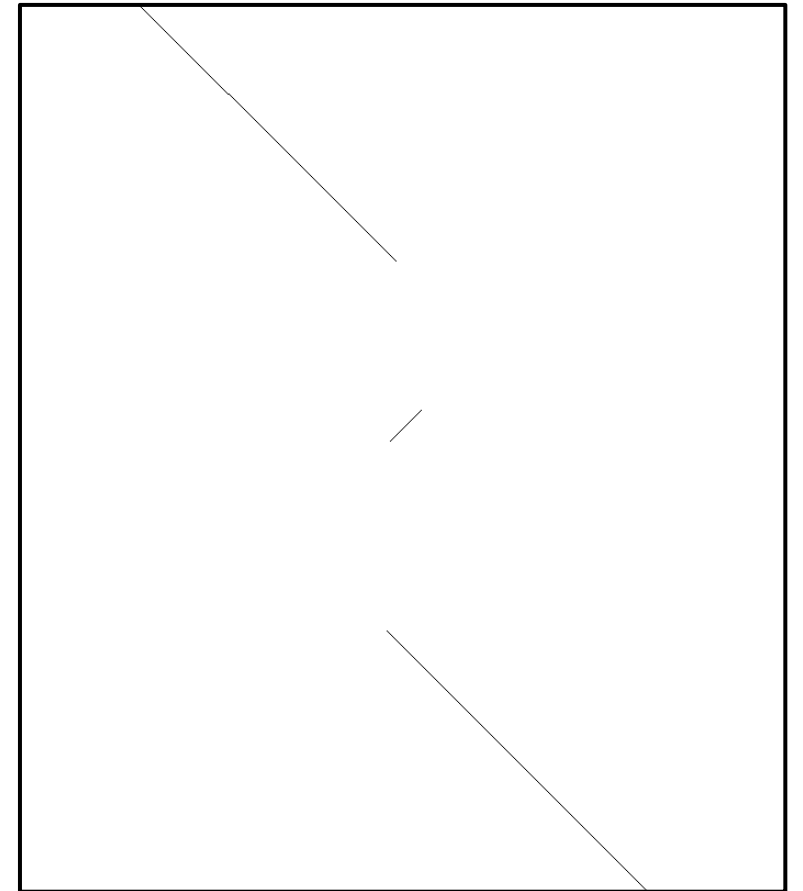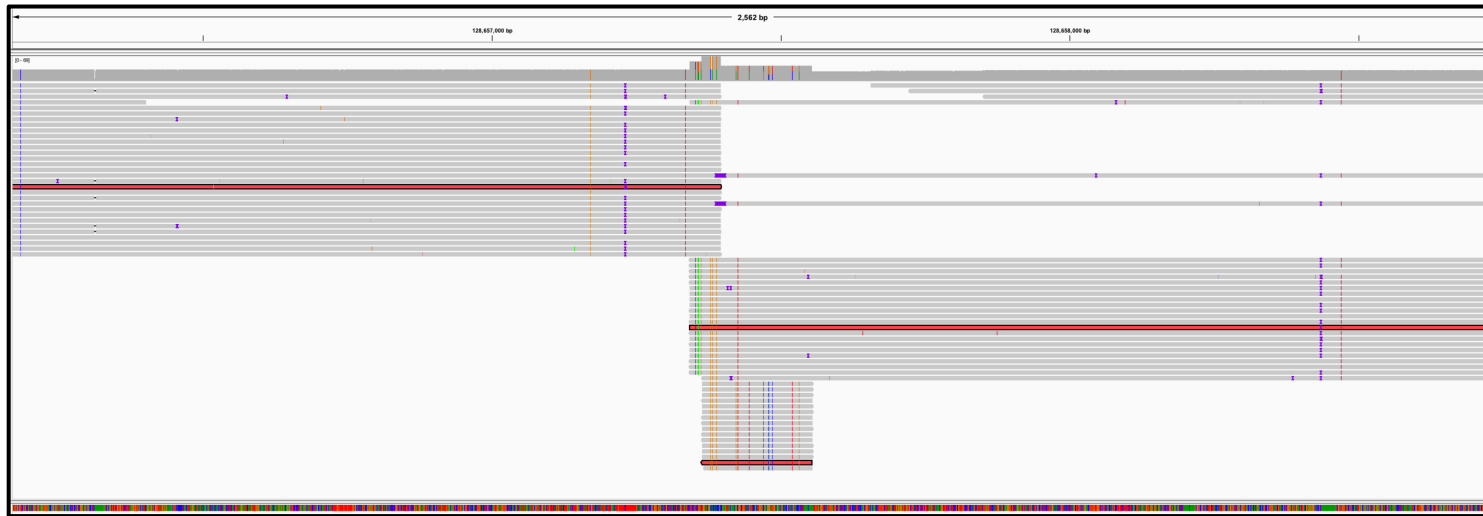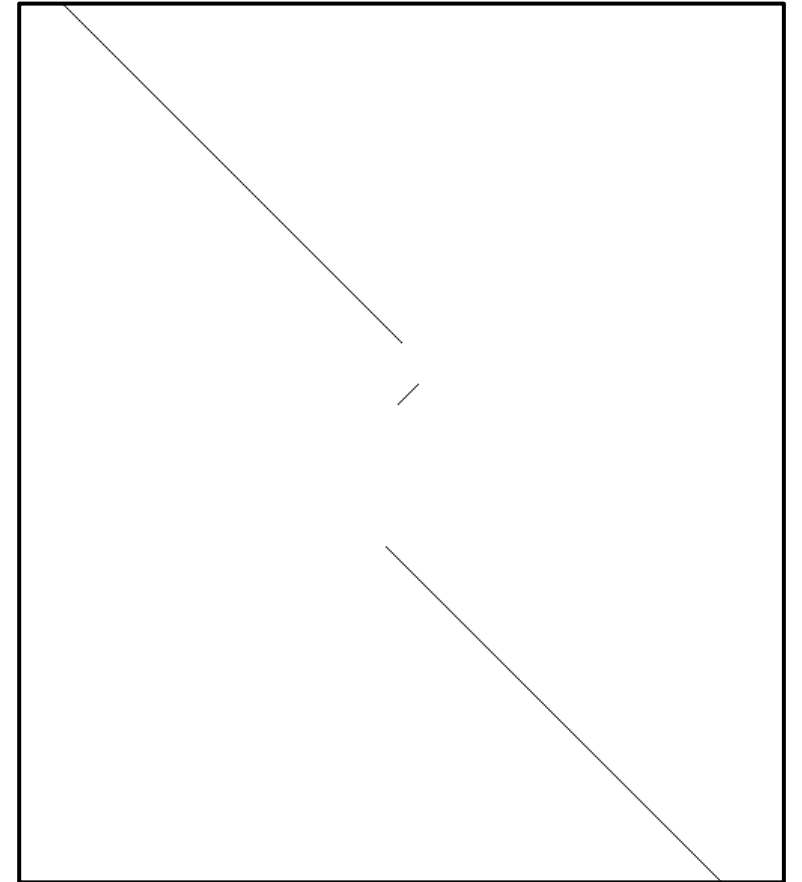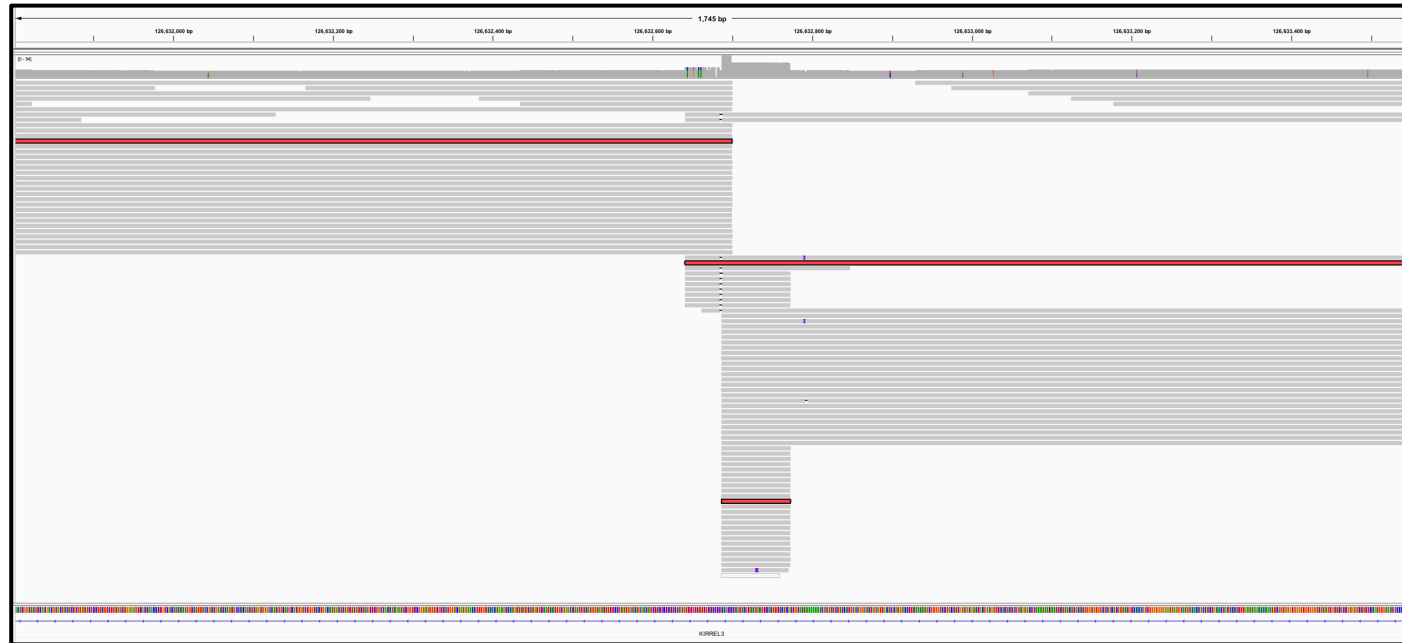# chr3-128657347-128657553

❖ chr11-126632640-126632771

❖ chr12-65424994-65425174


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S1  N   SN:Z:chr12   SO:i:65425002   SR:i:0  LN:i:174
S2  N   SN:Z:chr12   SO:i:65425057   SR:i:0  LN:i:1966
I0  N   SN:Z:m54329U_190827_173812/127861958/ccs    SO:i:13569  SR:i:0  LN:i:226
I1  N   SN:Z:m54329U_190827_173812/127861958/ccs    SO:i:13971  SR:i:0  LN:i:237
I2  N   SN:Z:m54329U_190827_173812/127861958/ccs    SO:i:14209  SR:i:0  LN:i:61 DP:S:S0:65424995
S0  +   I0  +   0M  SR:i:0
I0  +   S1  −   0M  SR:i:0
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I1  +   I2  +   0M  SR:i:0
I2  +   S2  +   0M  SR:i:0
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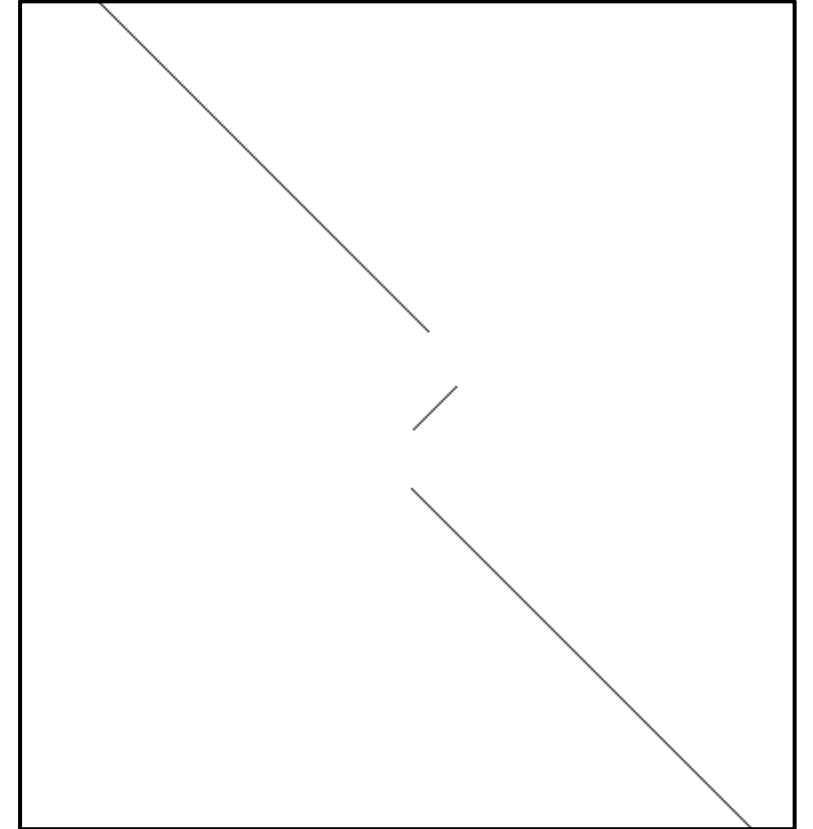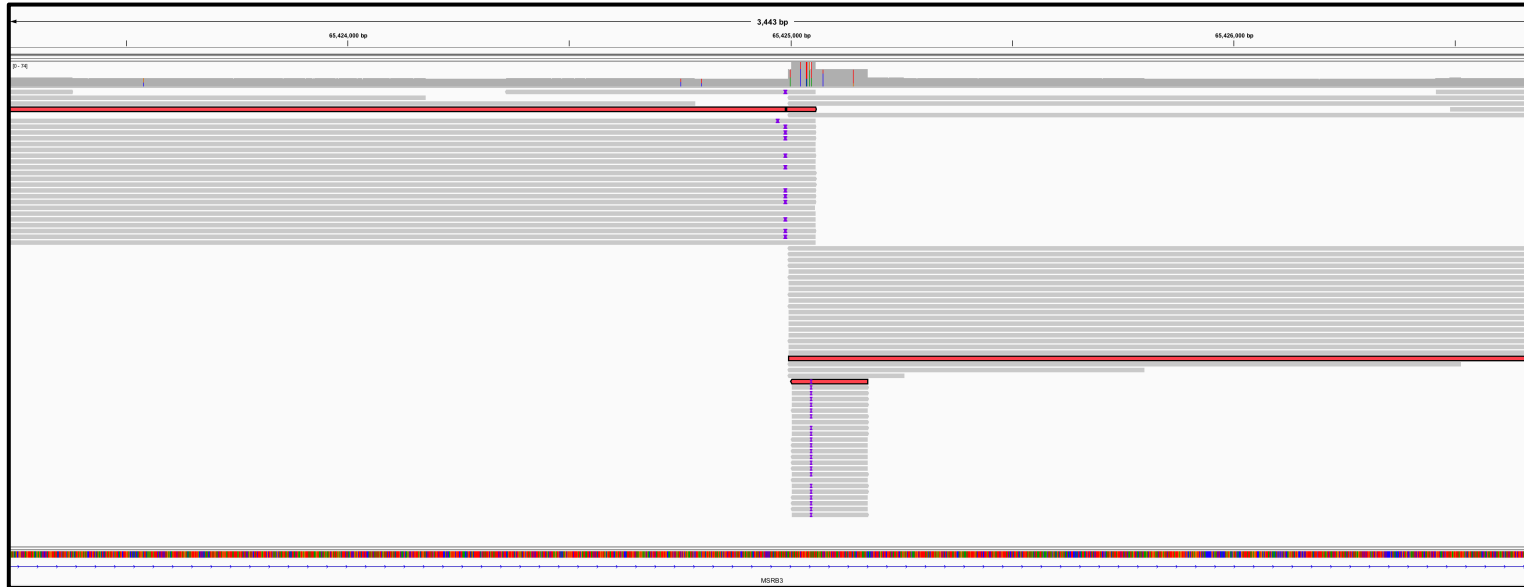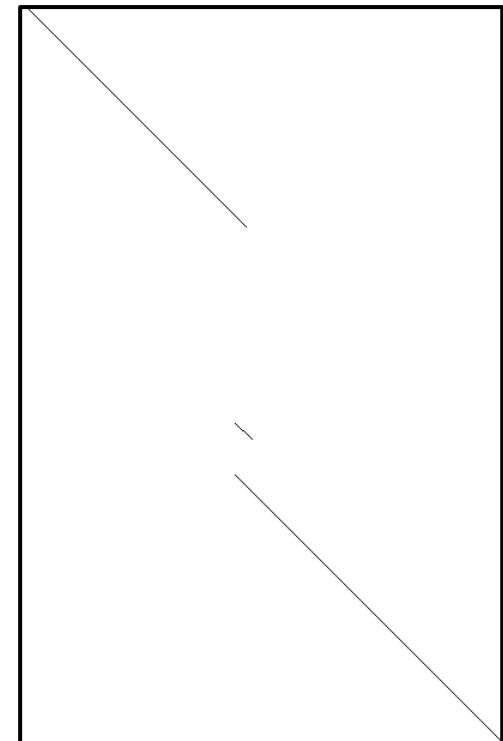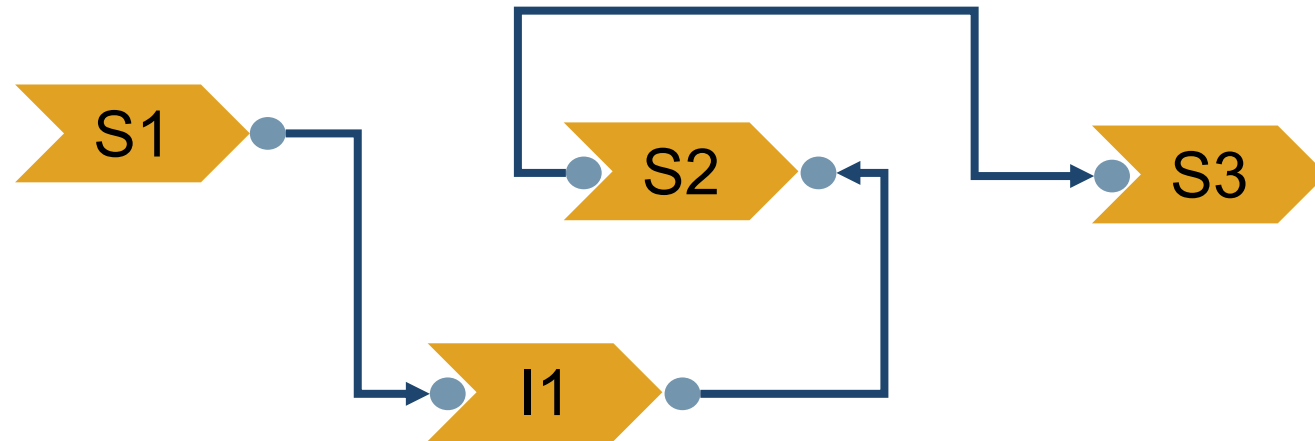
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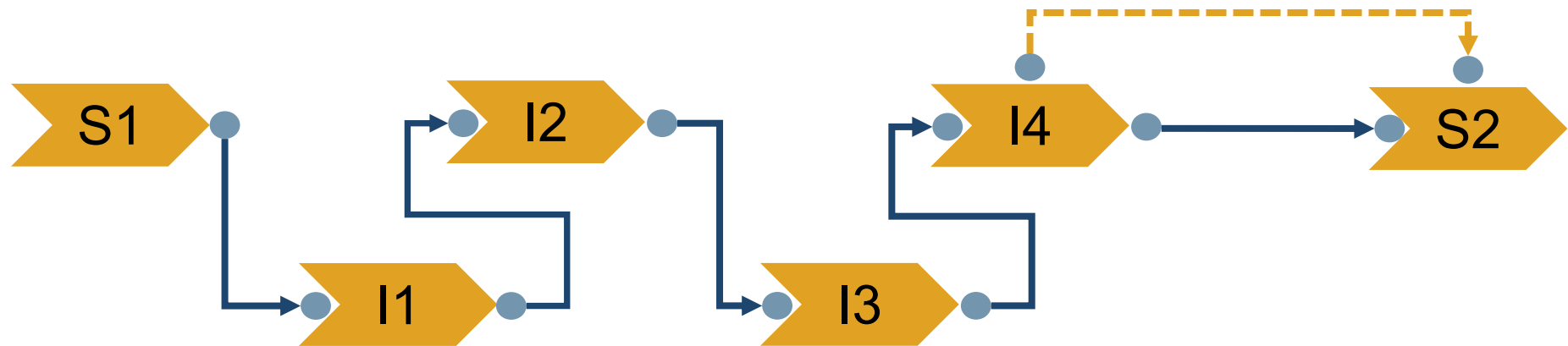
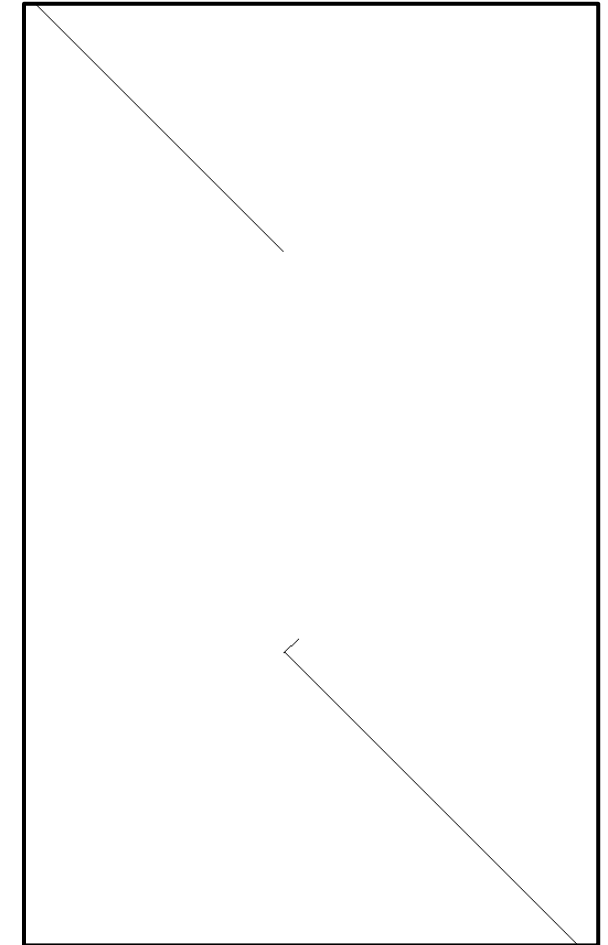Nodes=S:2,I:4,D:1
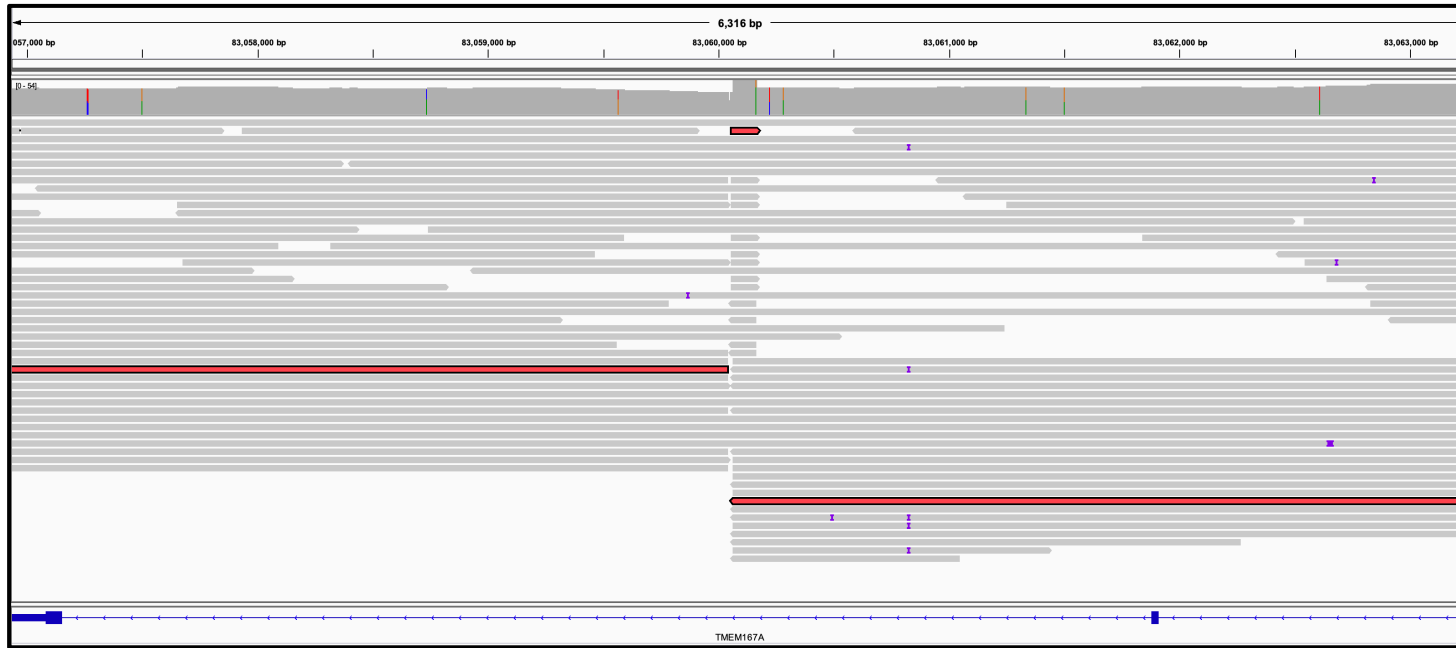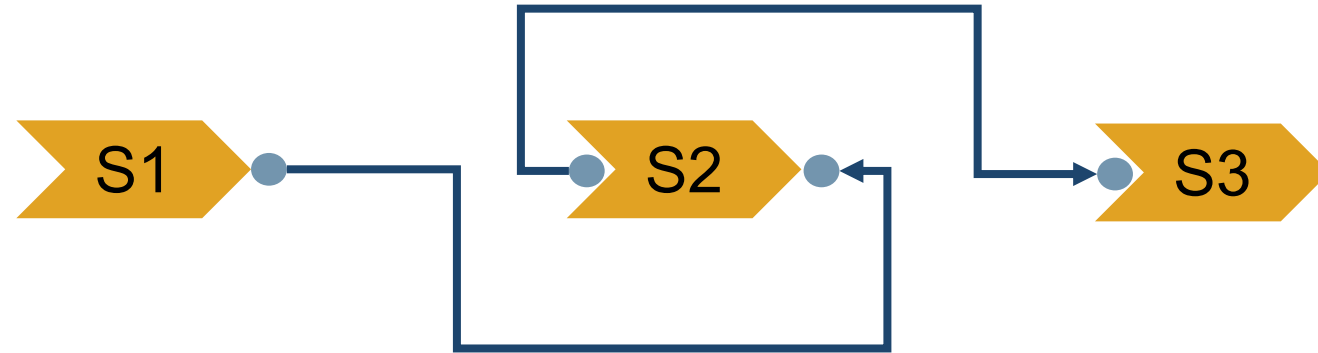
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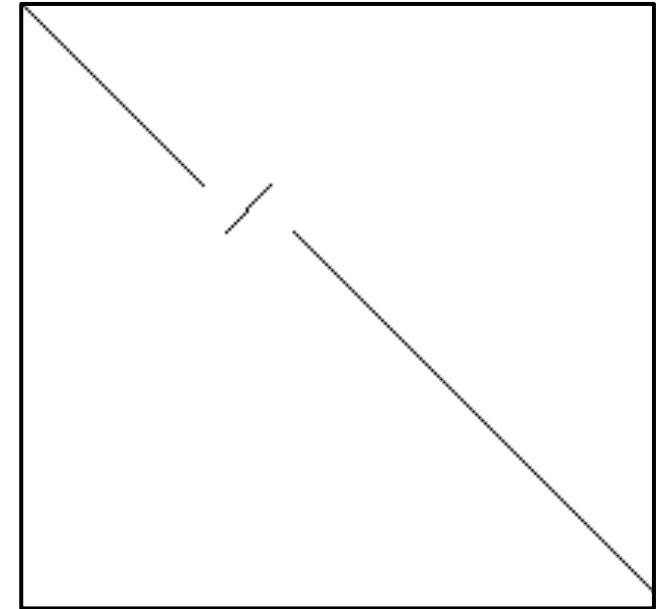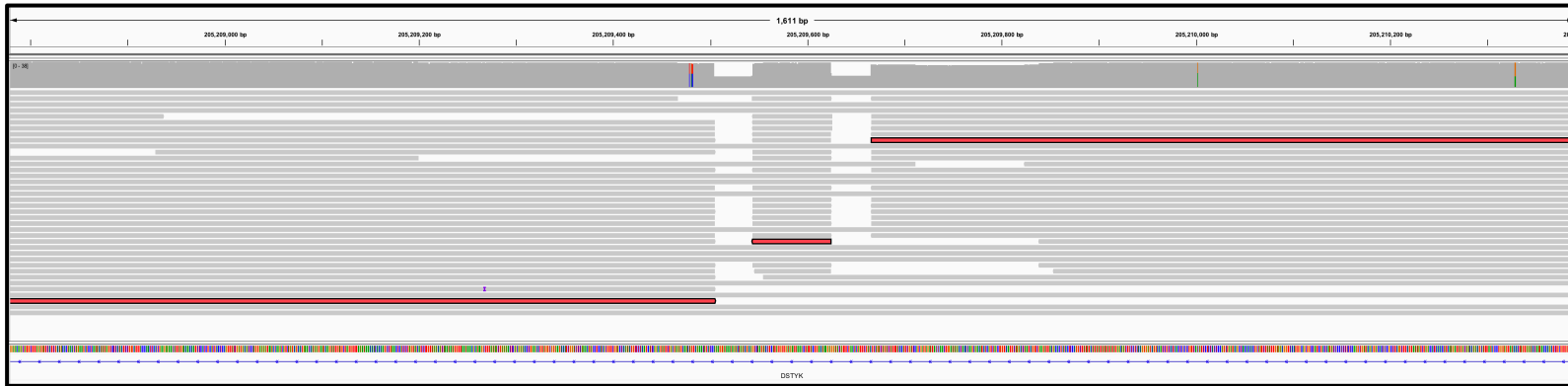XR_001750930.1
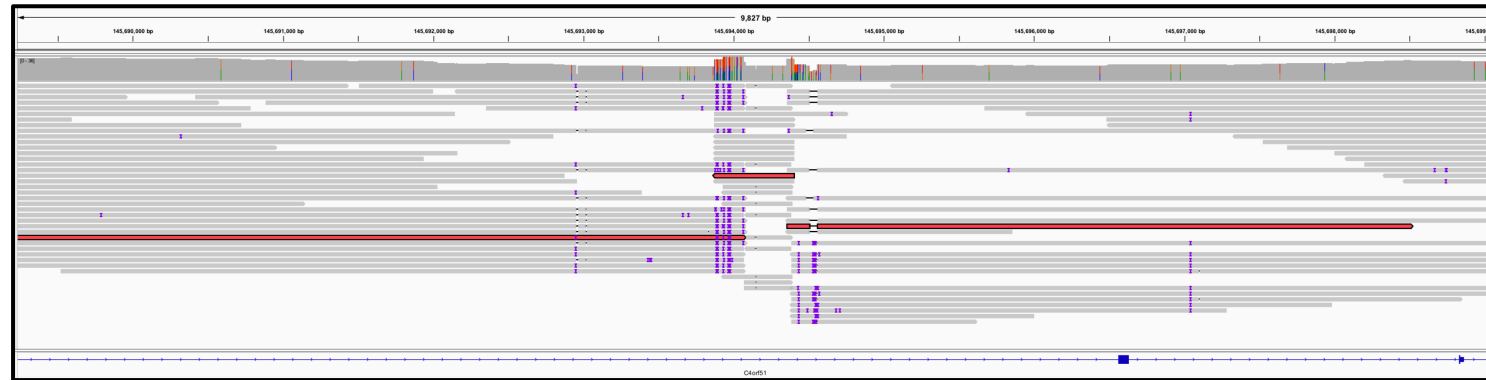
GraphID-16

Nodes=S:3,I:1

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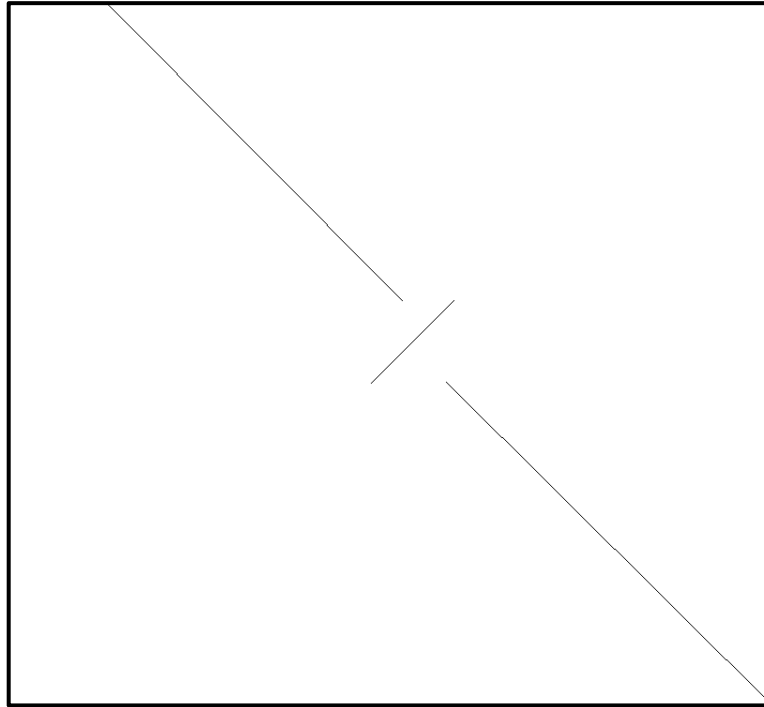
GraphID-18

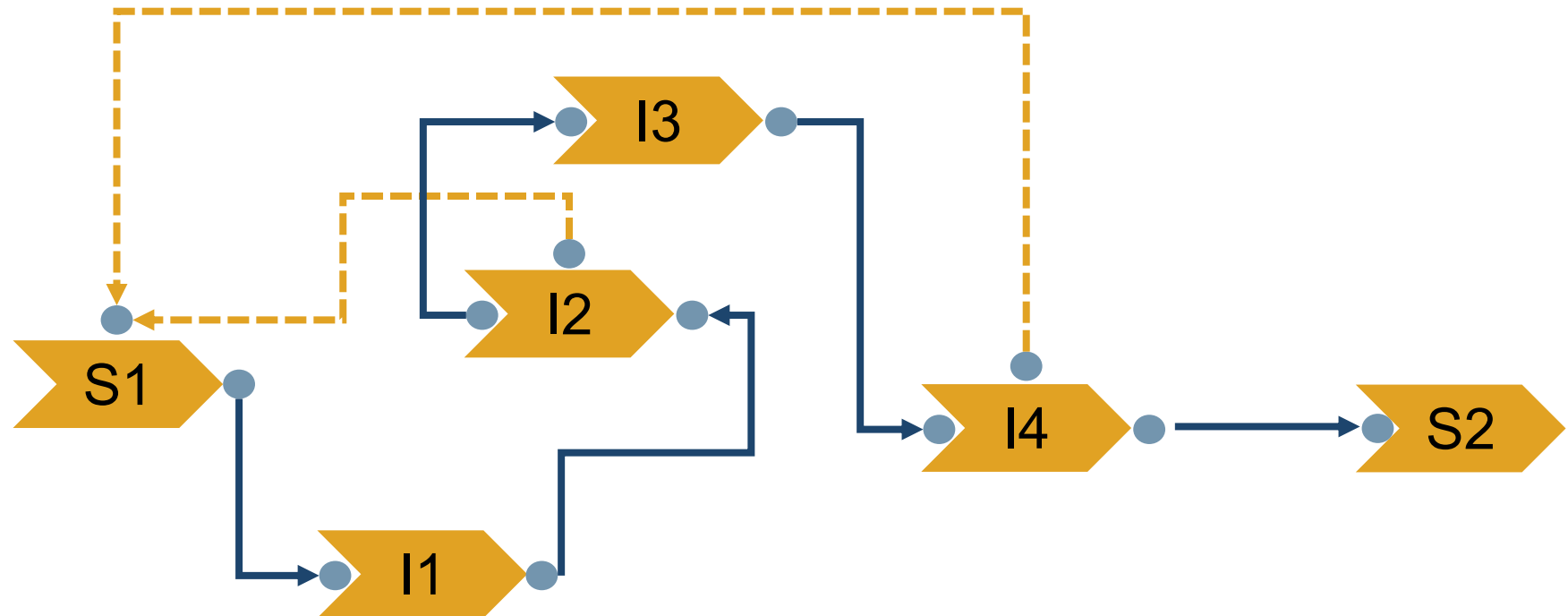Nodes=S:3

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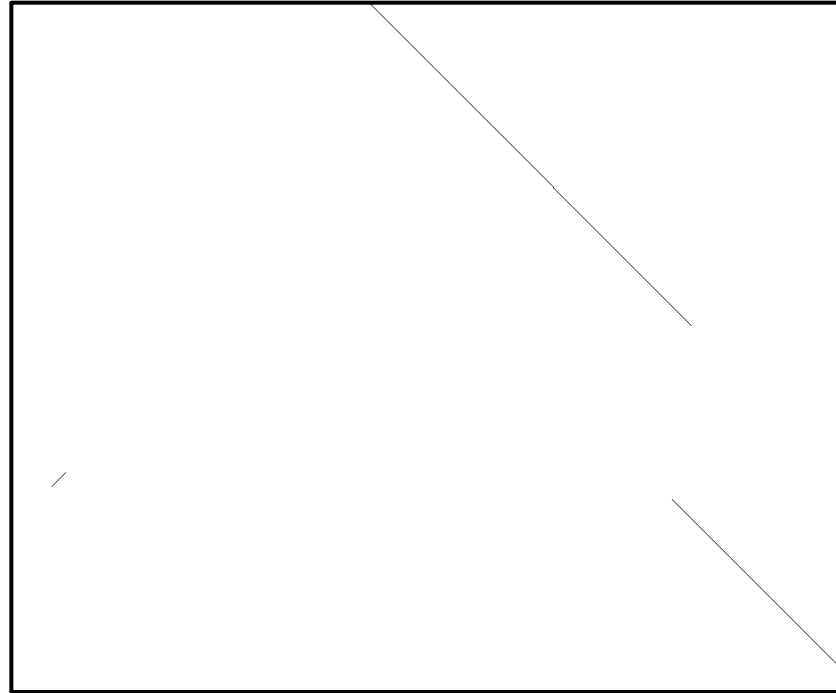
❖ **chr4-145693889-145694397**

Supplementary File 2

GraphID-49

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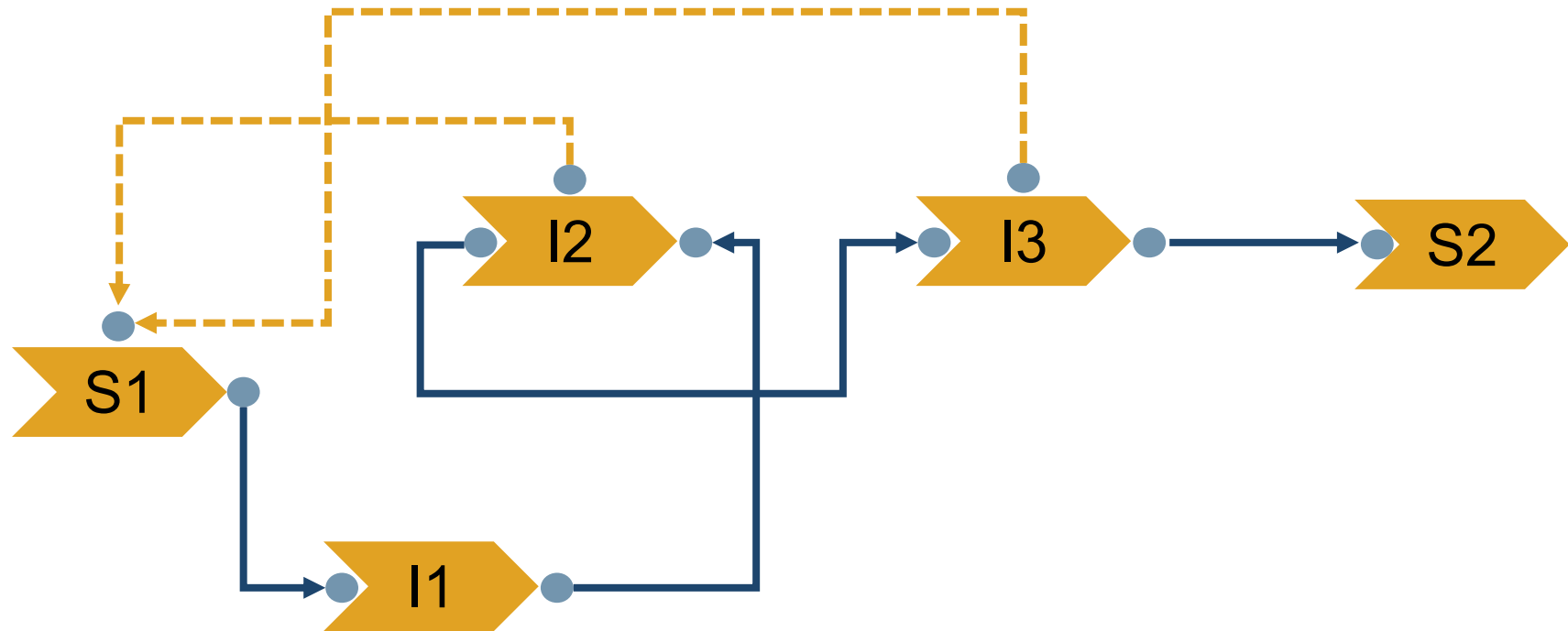
Supplementary File 2

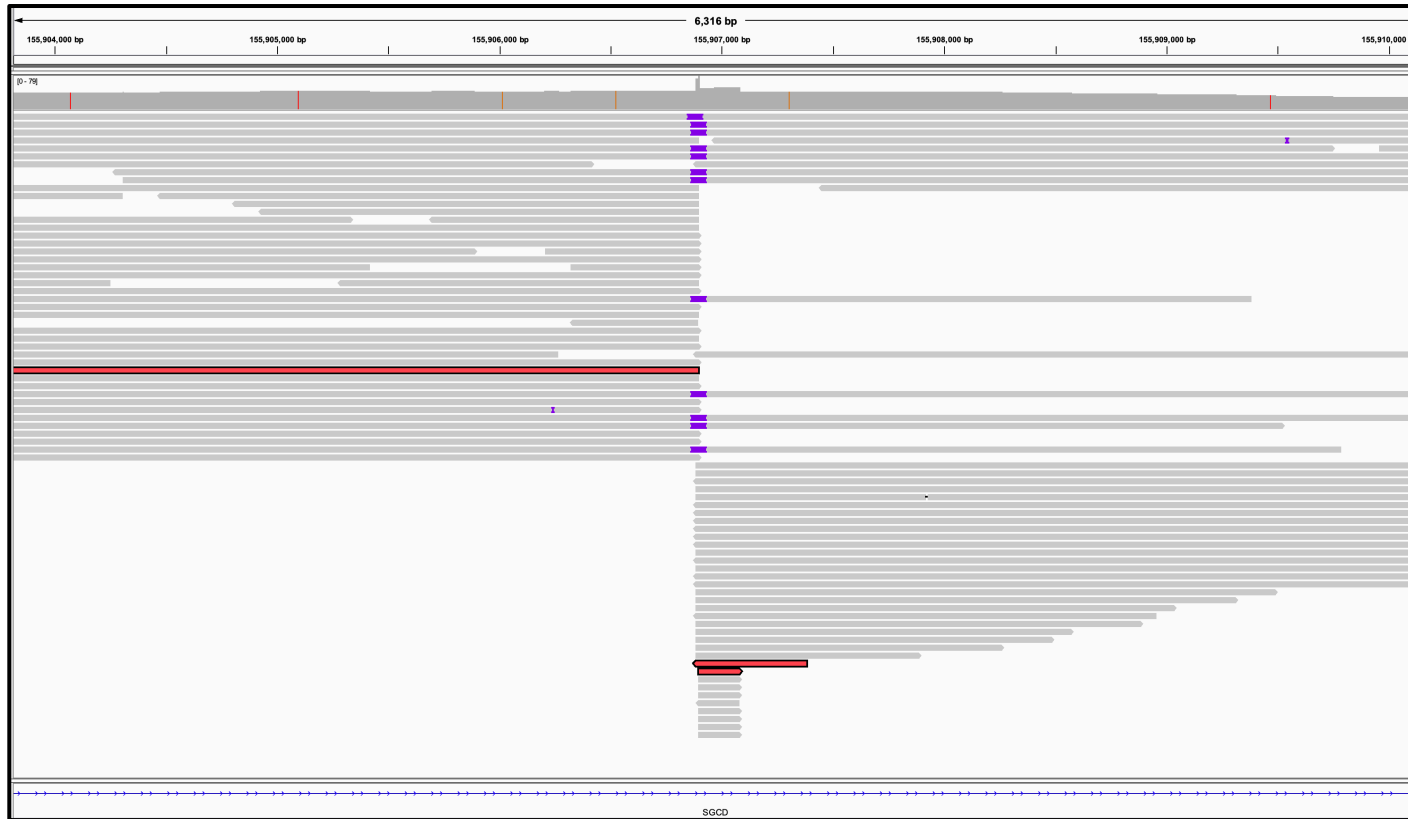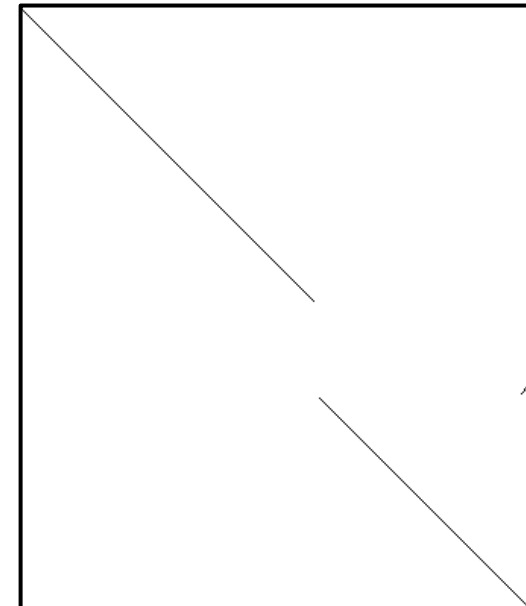# GraphID-47
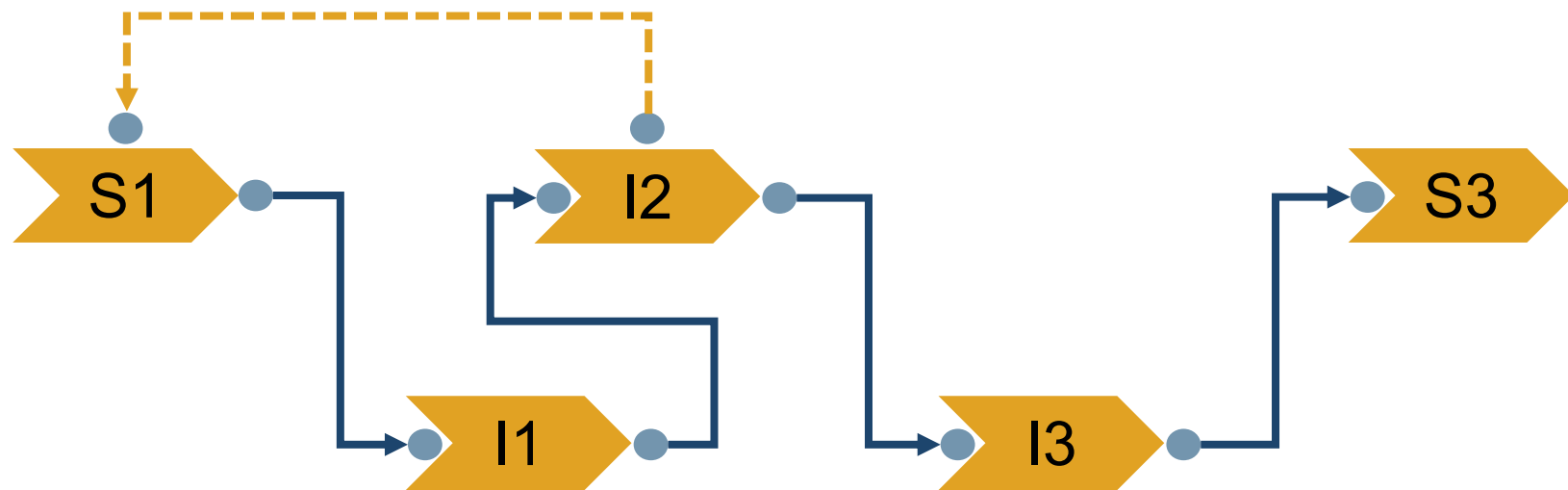

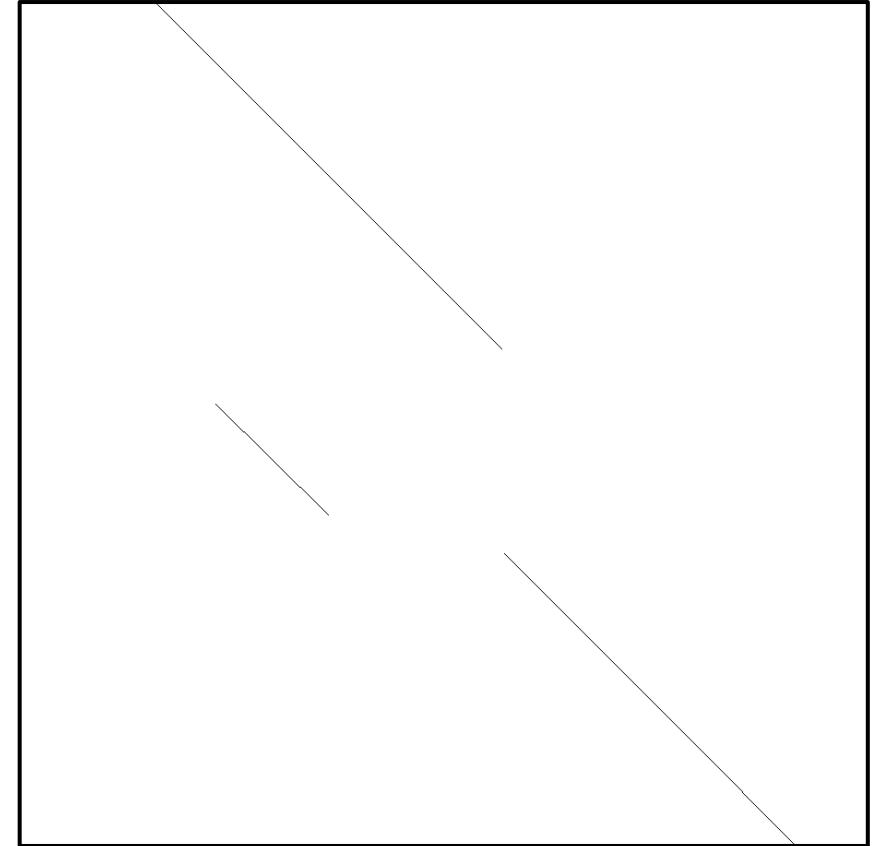Nodes=S:2,I:2,D:1

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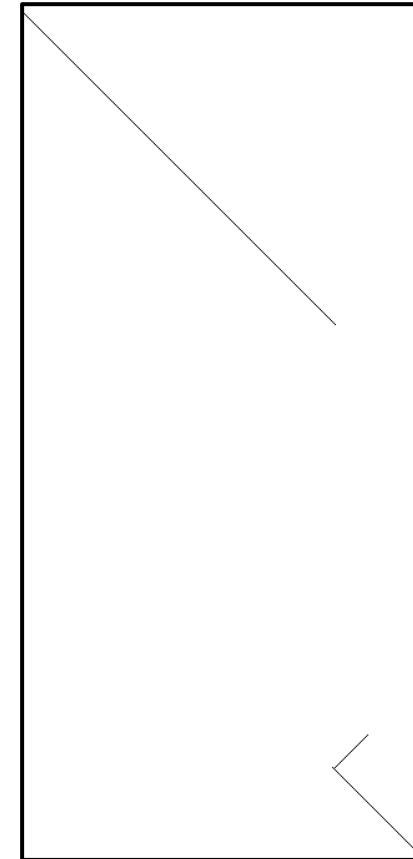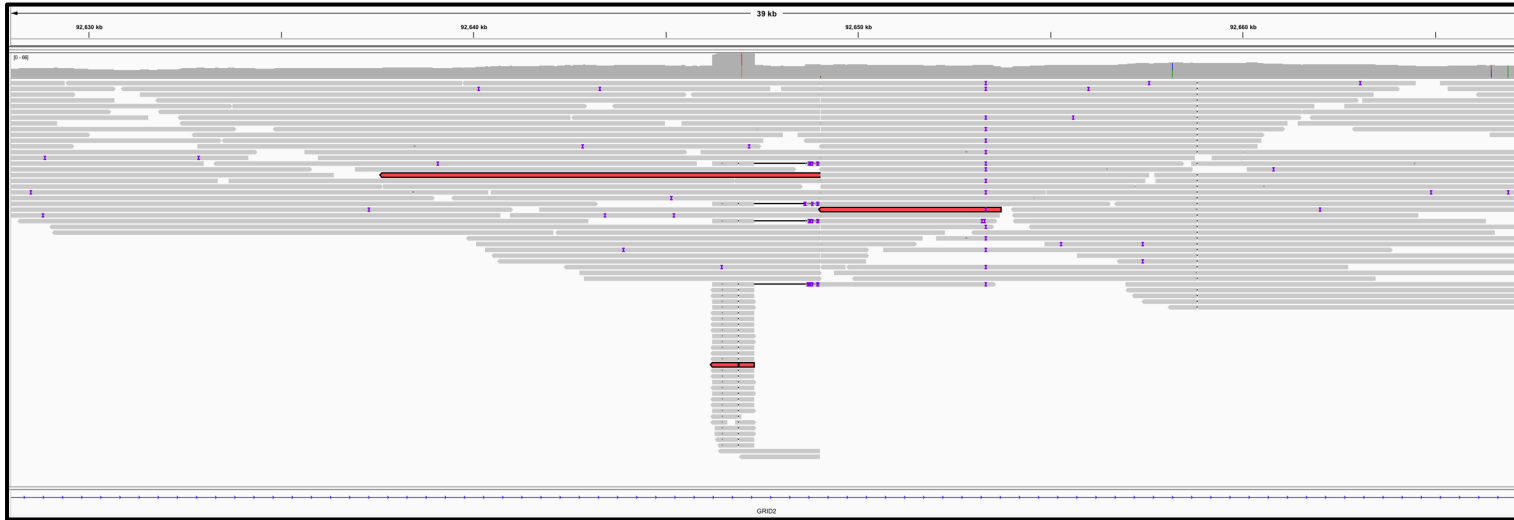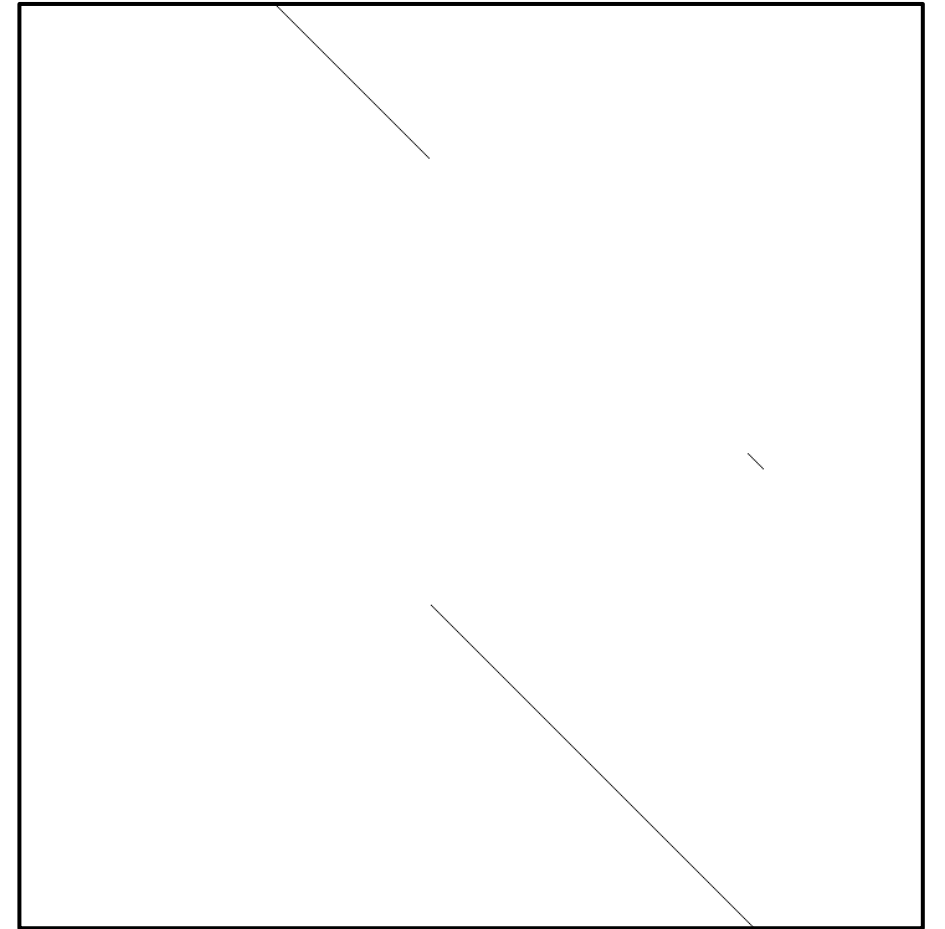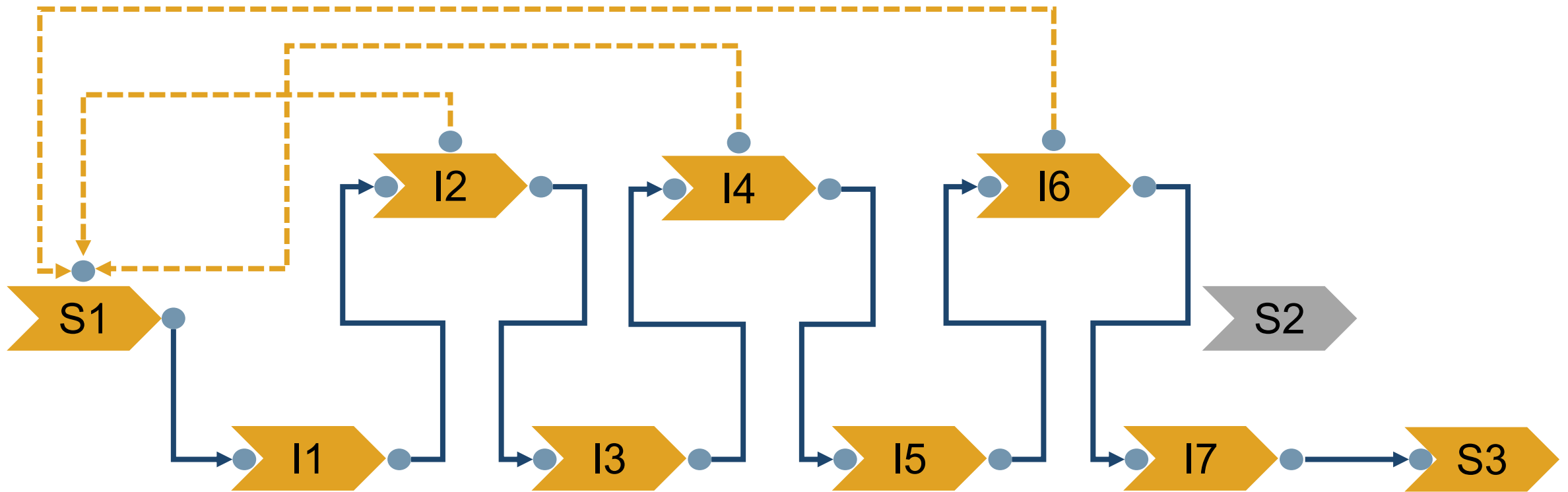
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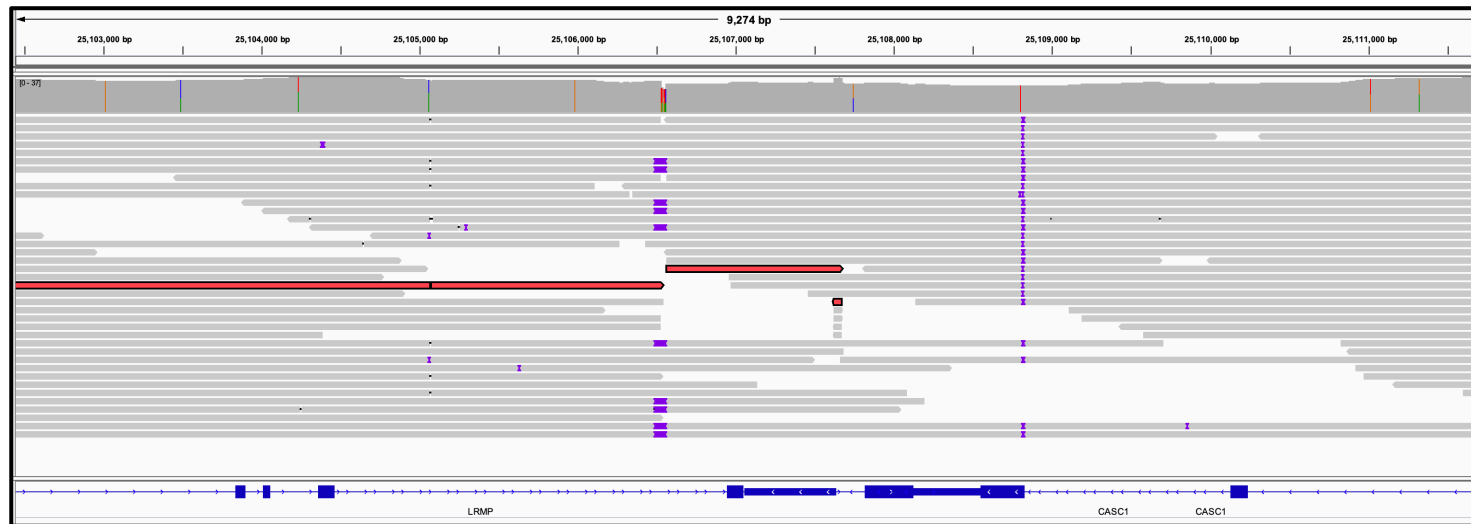
GraphID-40

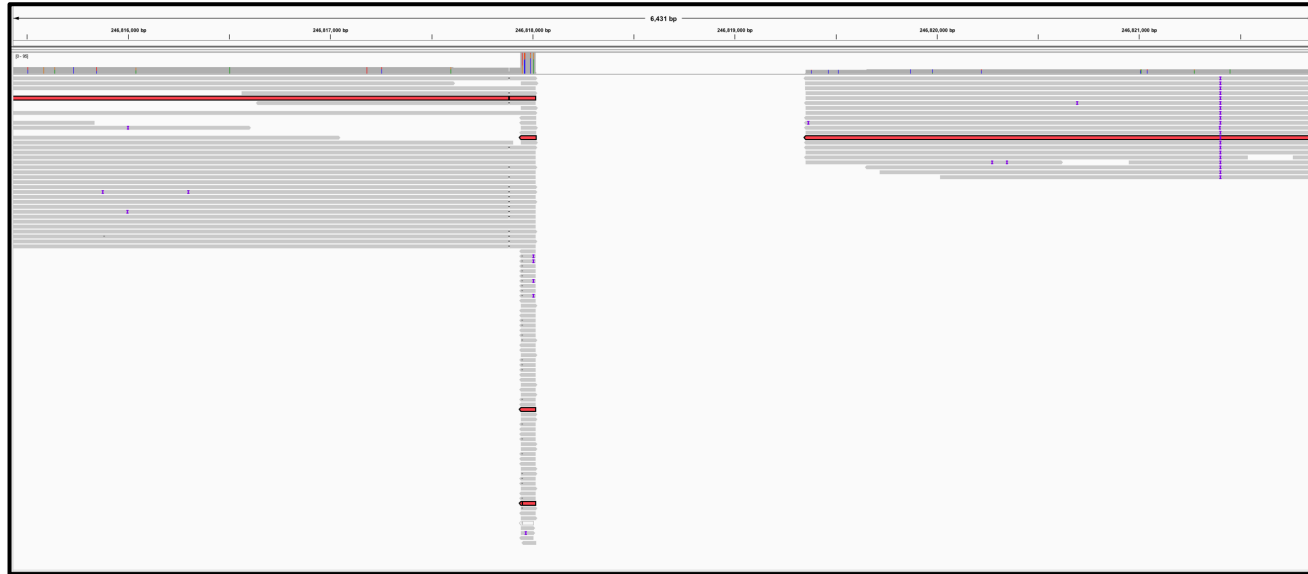Nodes=S:2,I:3,D:1
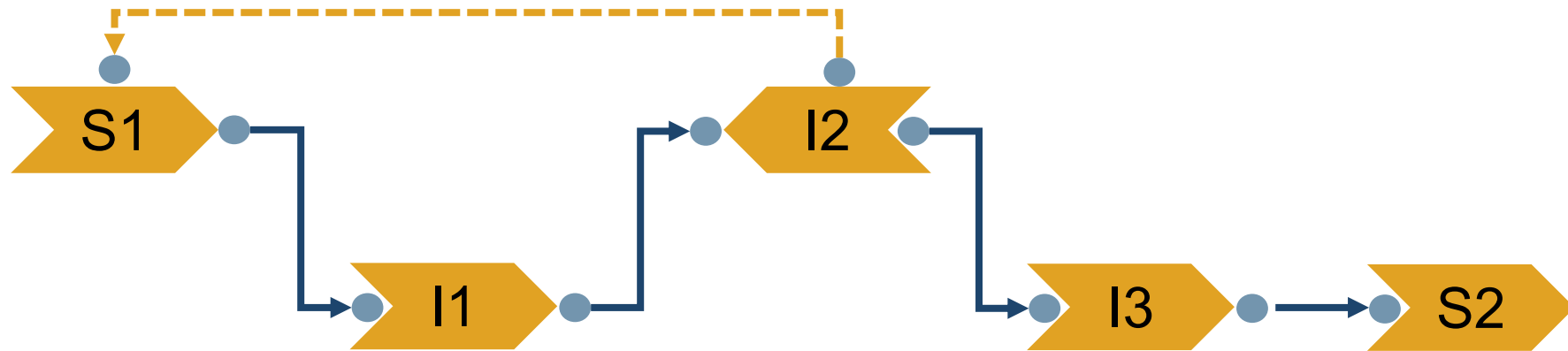
chr4-92646210-92649022

❖ chr5-51925593-51927635
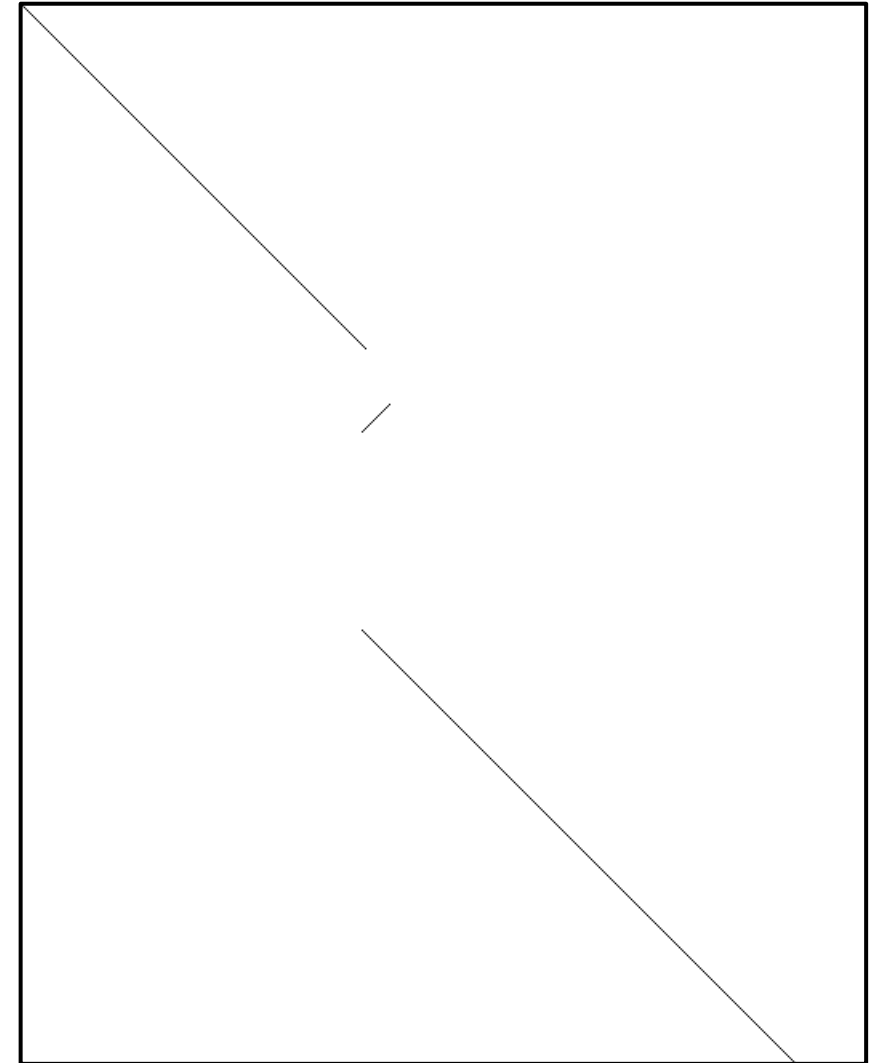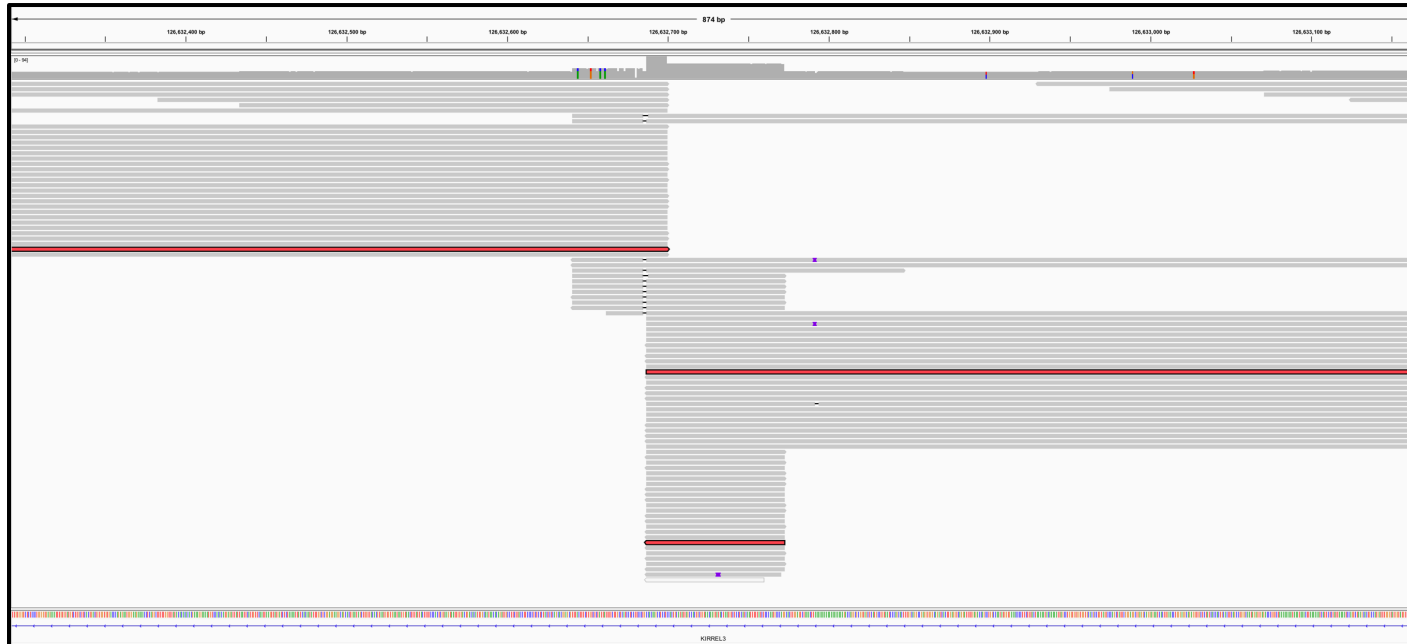
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Nodes=S:3,I:7,D:3
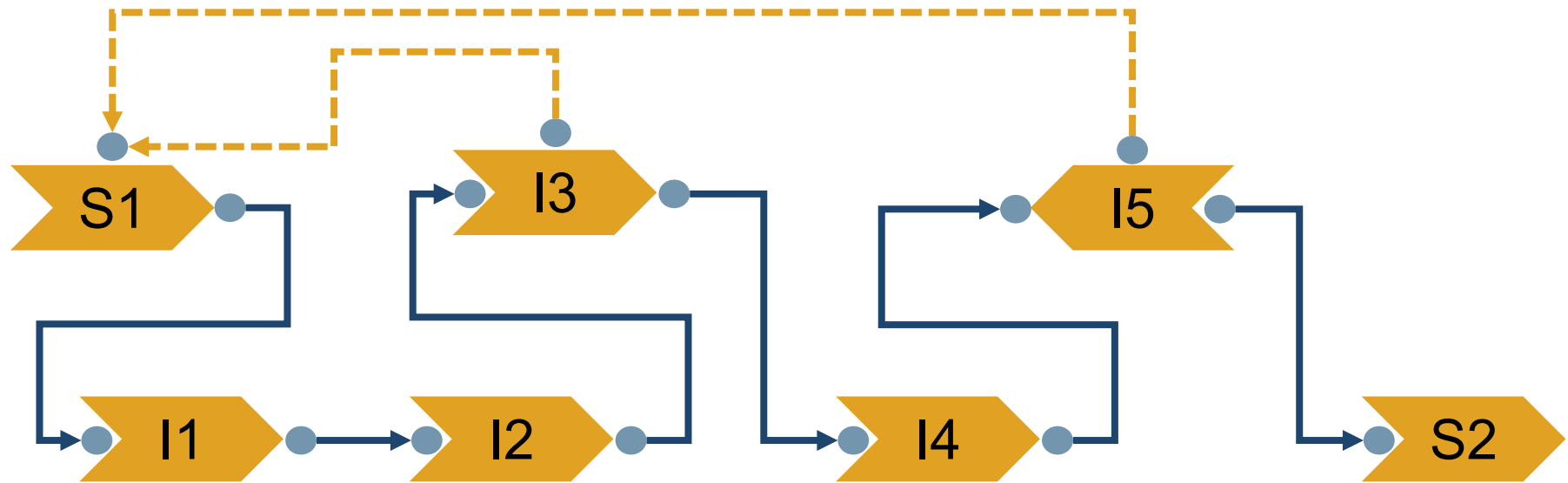
❖ chr1-246817940-246819350
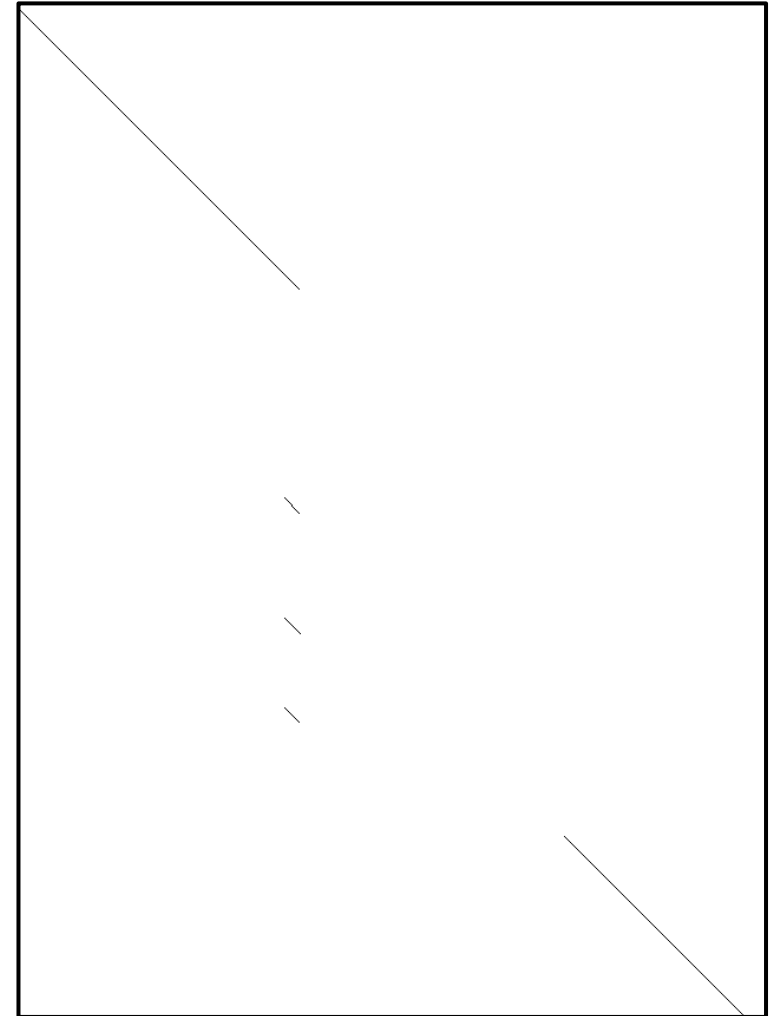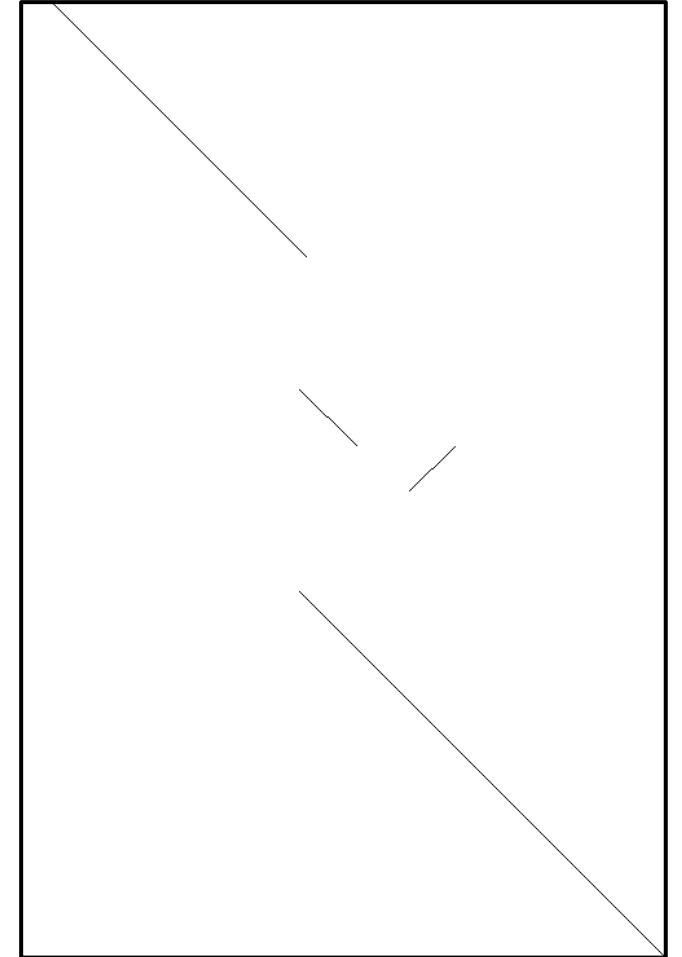
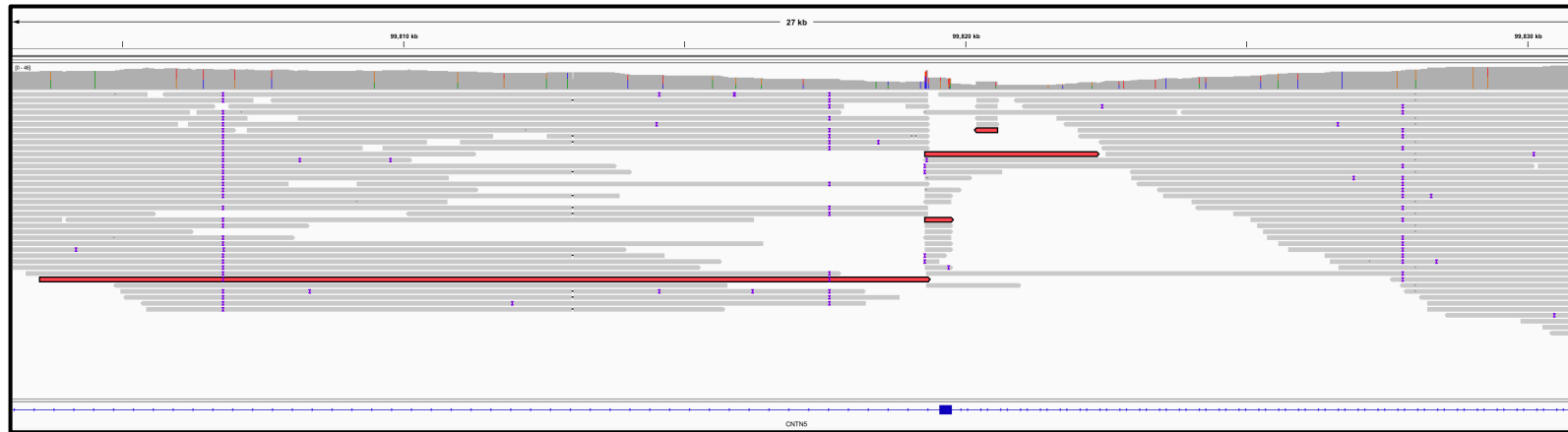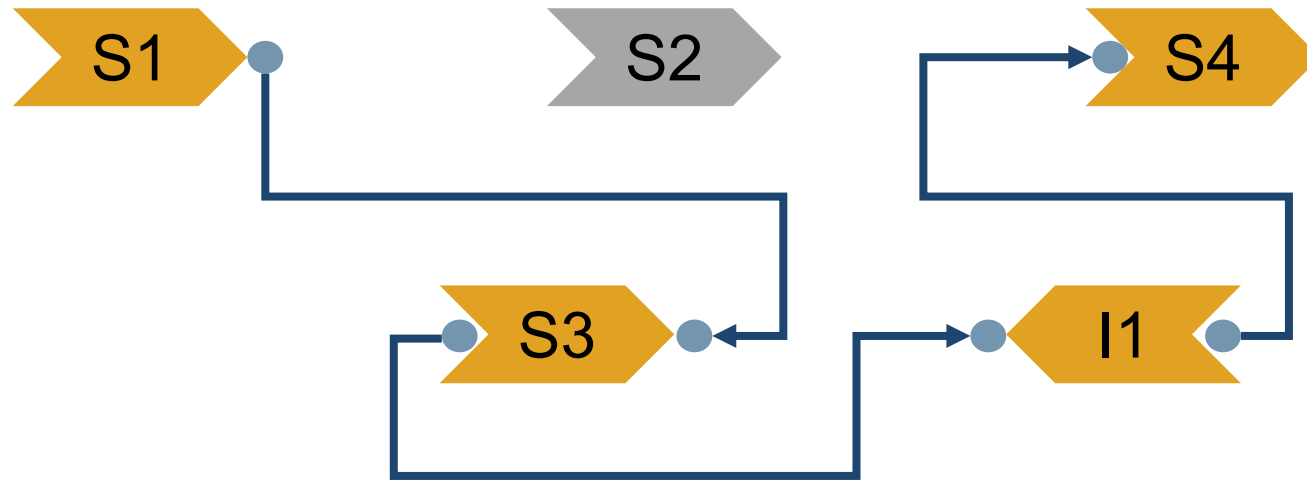# GraphID-55

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chr11-126632686-126632772

GraphID-54

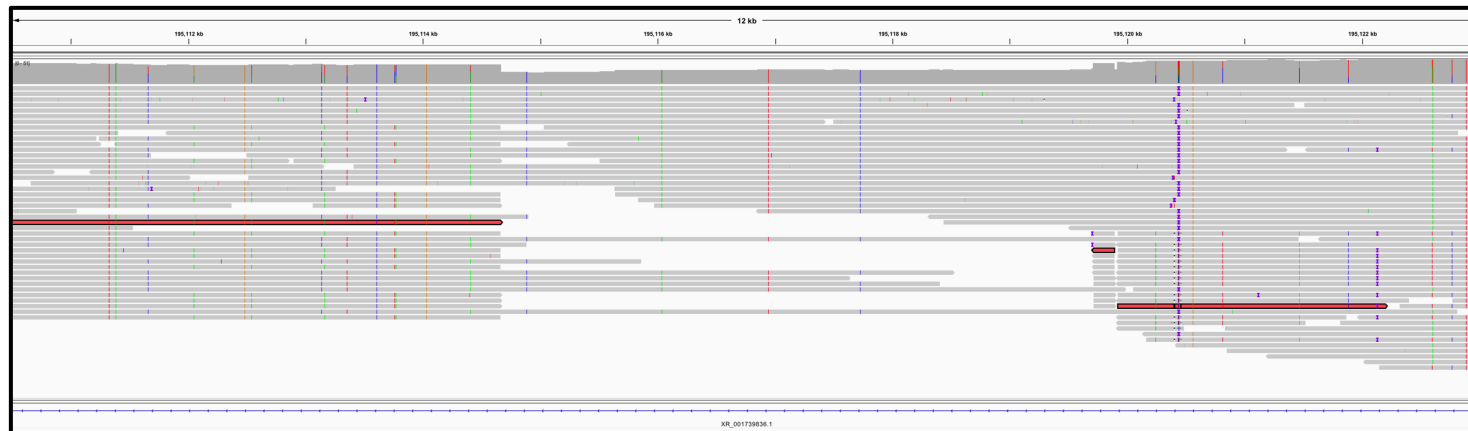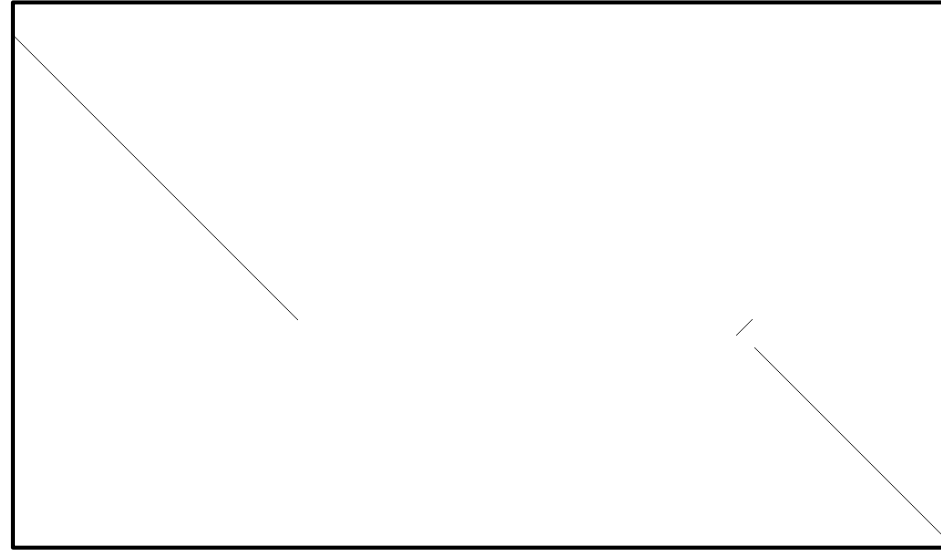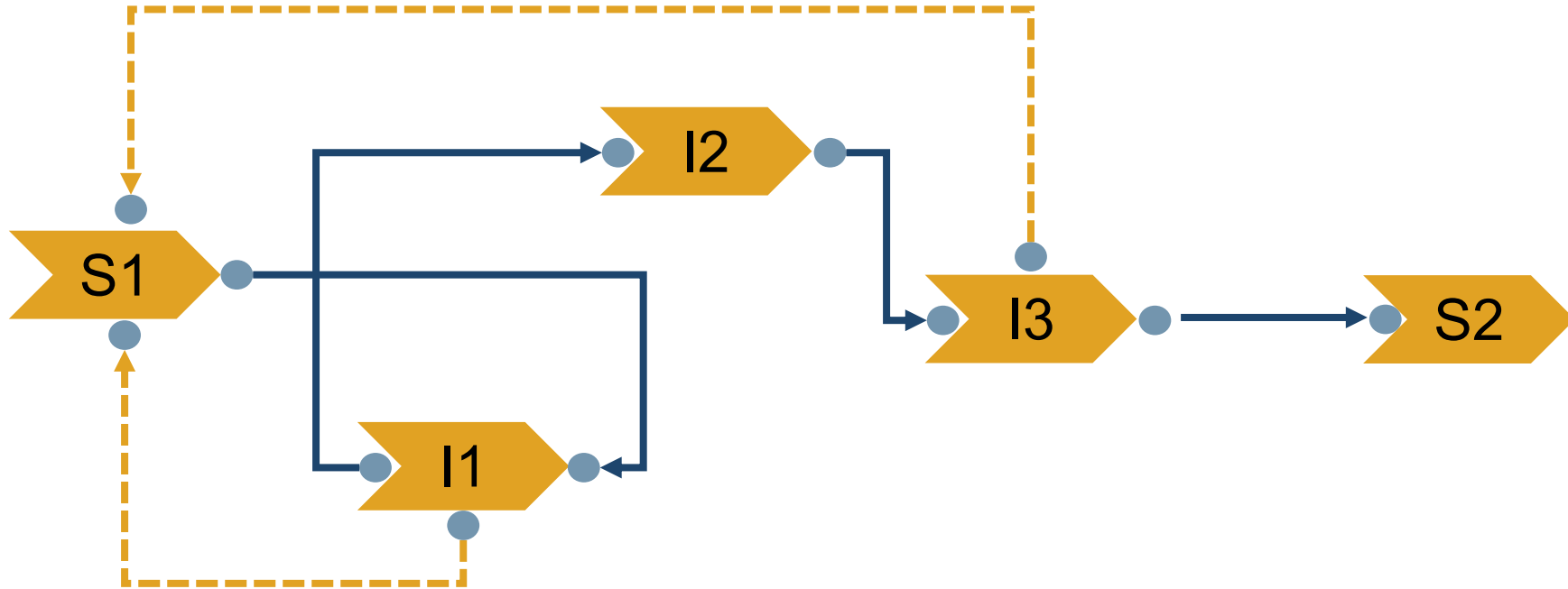Nodes=S:2,I:5,D:2

chr11-99819283-99820576

GraphID-26

Nodes=S:4,I:1

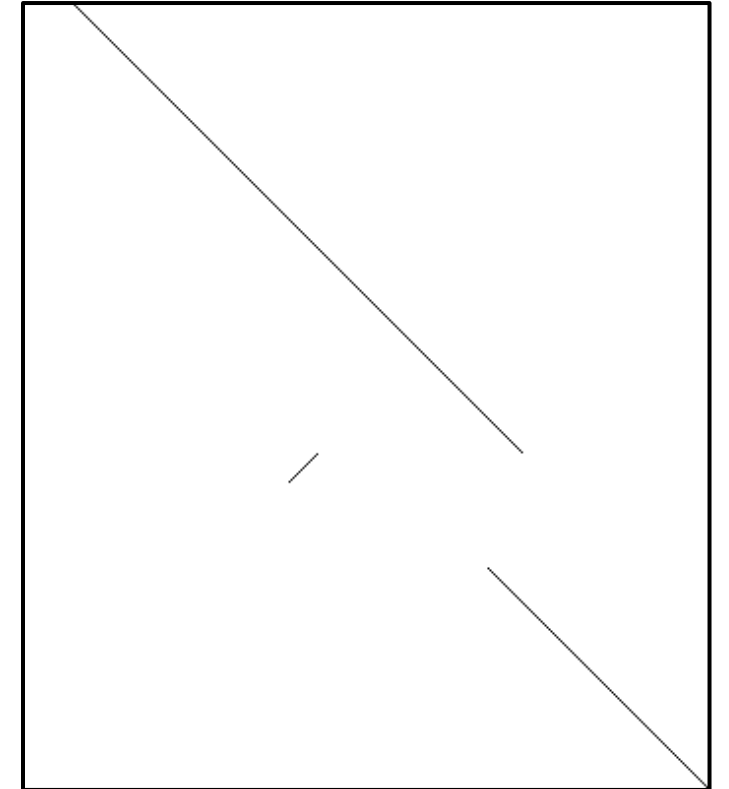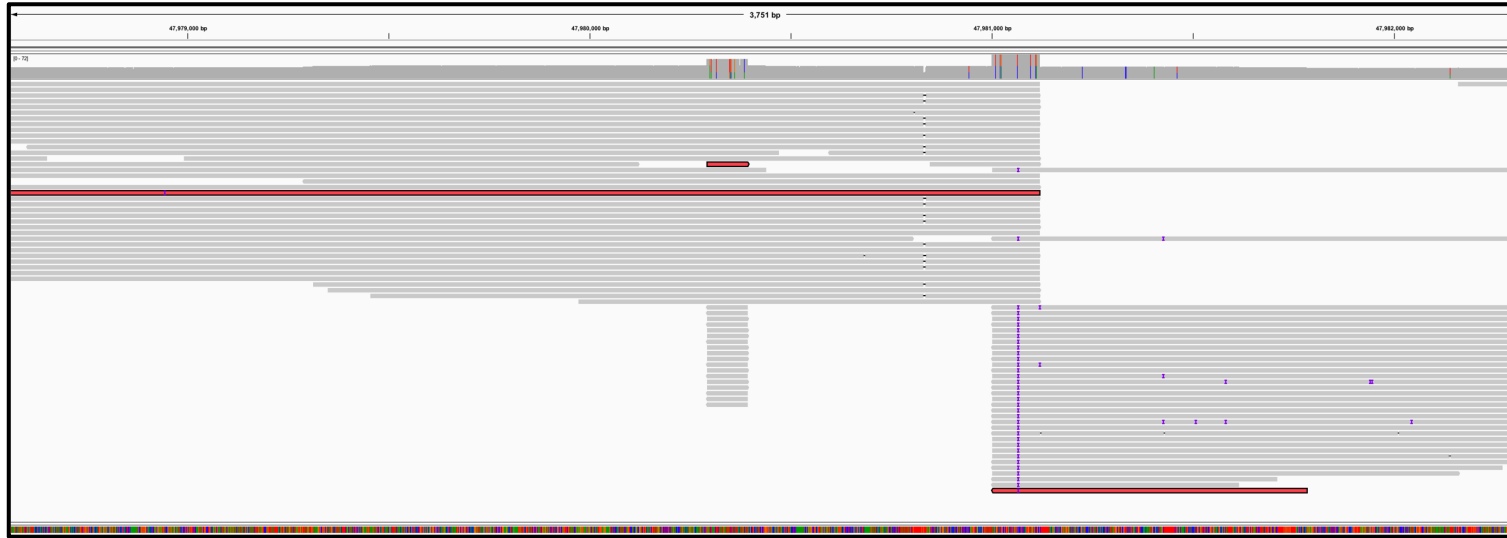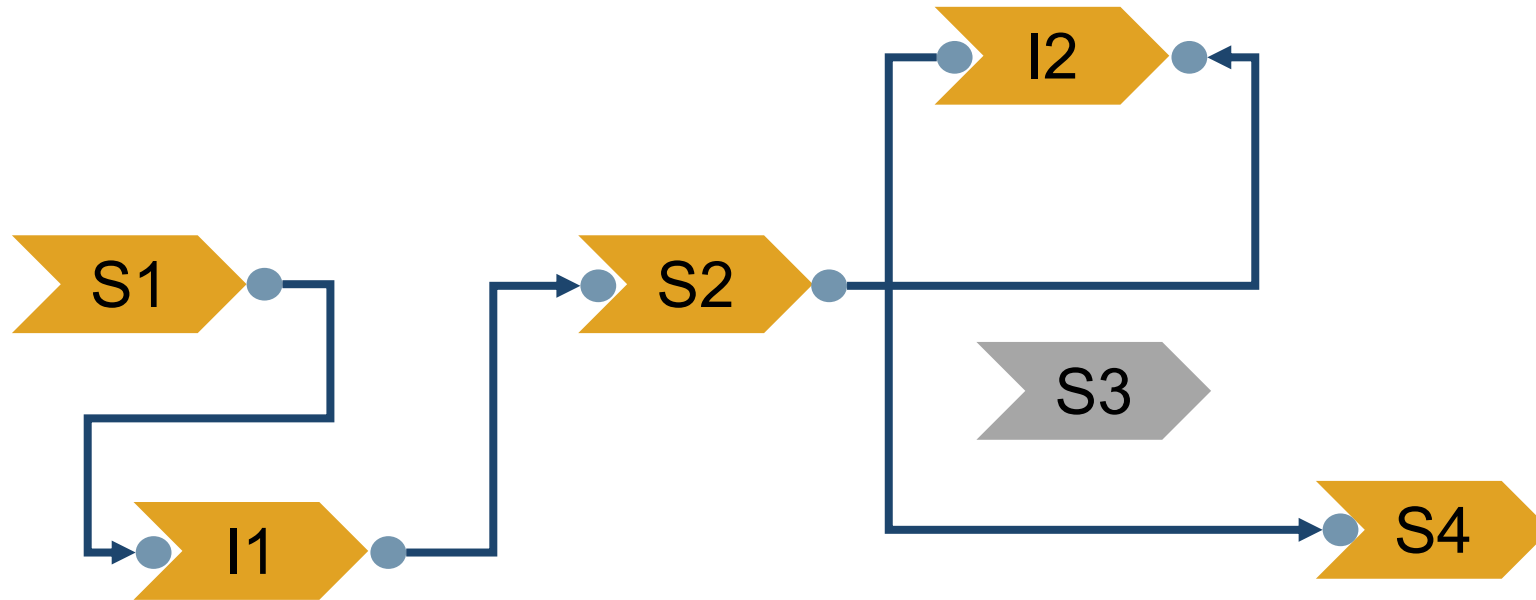# ❖ chr2-195114663-195119917

Supplementary File 2

GraphID-35

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❖ chr8-47980291-47981120

GraphID-51

Nodes=S:4,I:2

❖ chr9-74283222-74283473