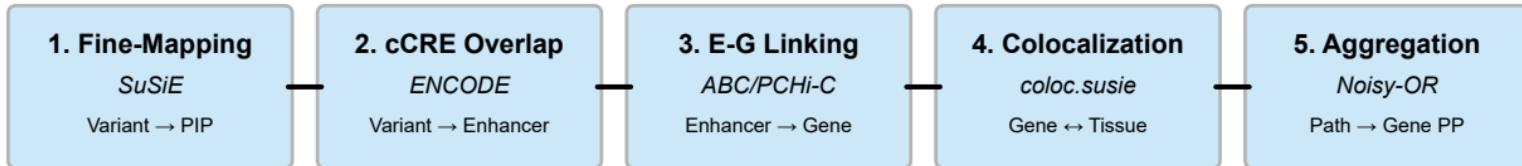
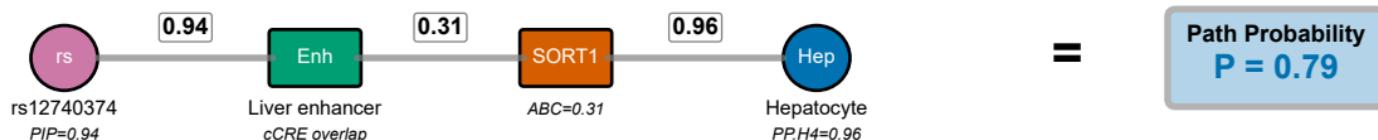


Mechanism Graph Framework for GWAS Gene Prioritization



Example: SORT1 Locus (1p13, LDL-C)



$$\text{Path Probability} = \text{PIP} \times \text{ABC} \times \text{PP.H4} = 0.94 \times 0.31 \times 0.96 \approx 0.28 \text{ (single path)}$$

$$\text{Final PP} = \text{Noisy-OR aggregation across all paths to gene} = 0.79$$

Variant

Enhancer

Gene

Tissue