

Figure S4

You had me at “MAGIC”! Four barley MAGIC populations reveal novel resistance QTL for Powdery Mildew

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Content

Manhattan and QQ-plots for each individual MAGIC population and the combined panel (MAGIC 1 to 4) for different models and covariate combinations.

Models tested:

GLM – General Linear Model (Zhang et al. 2010)

MLM – Mixed Linear Model (Zhang et al. 2010)

MLMM – Multiple Loci Mixed linear Model (Segura et al. 2012)

FarmCPU – Fixed and random model Circulating Probability Unification (Liu et al. 2016)

Covariates used:

K – Kinship matrix based on VanRaden Method (Van Raden 2008)

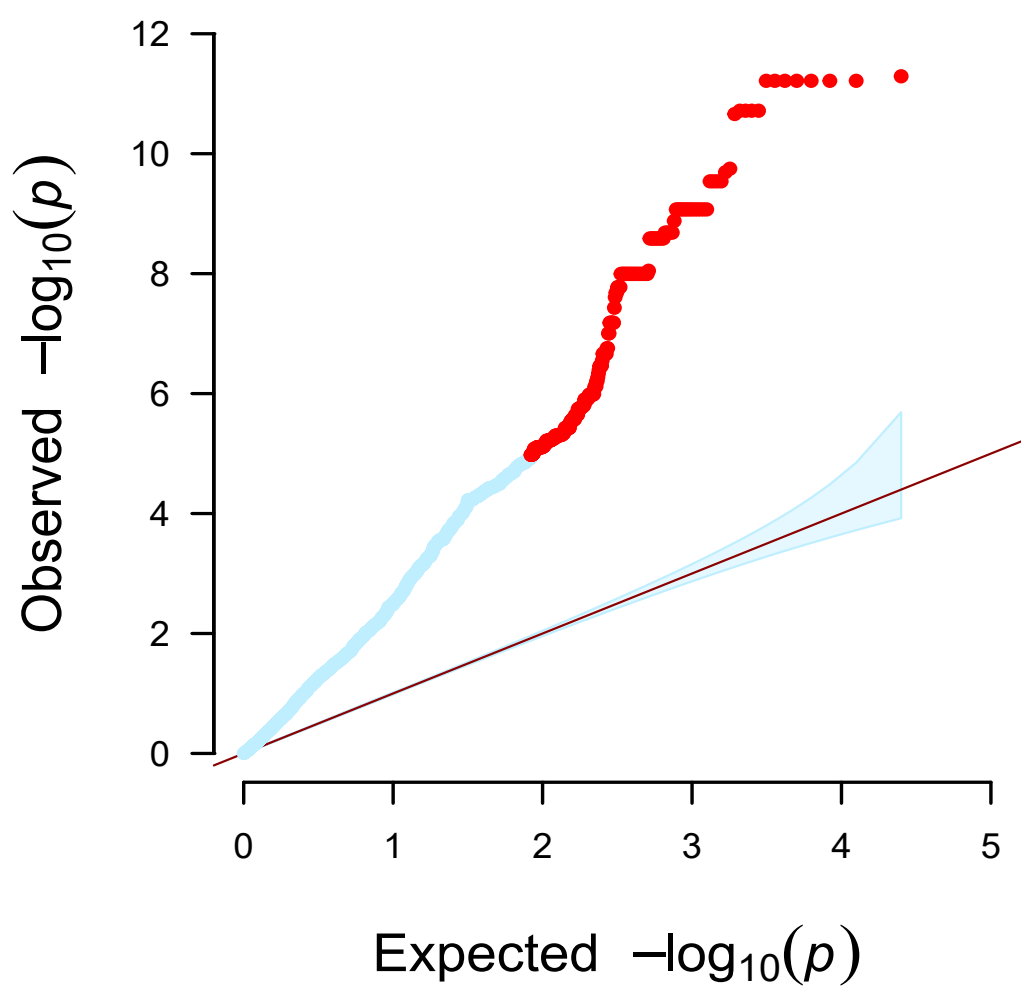
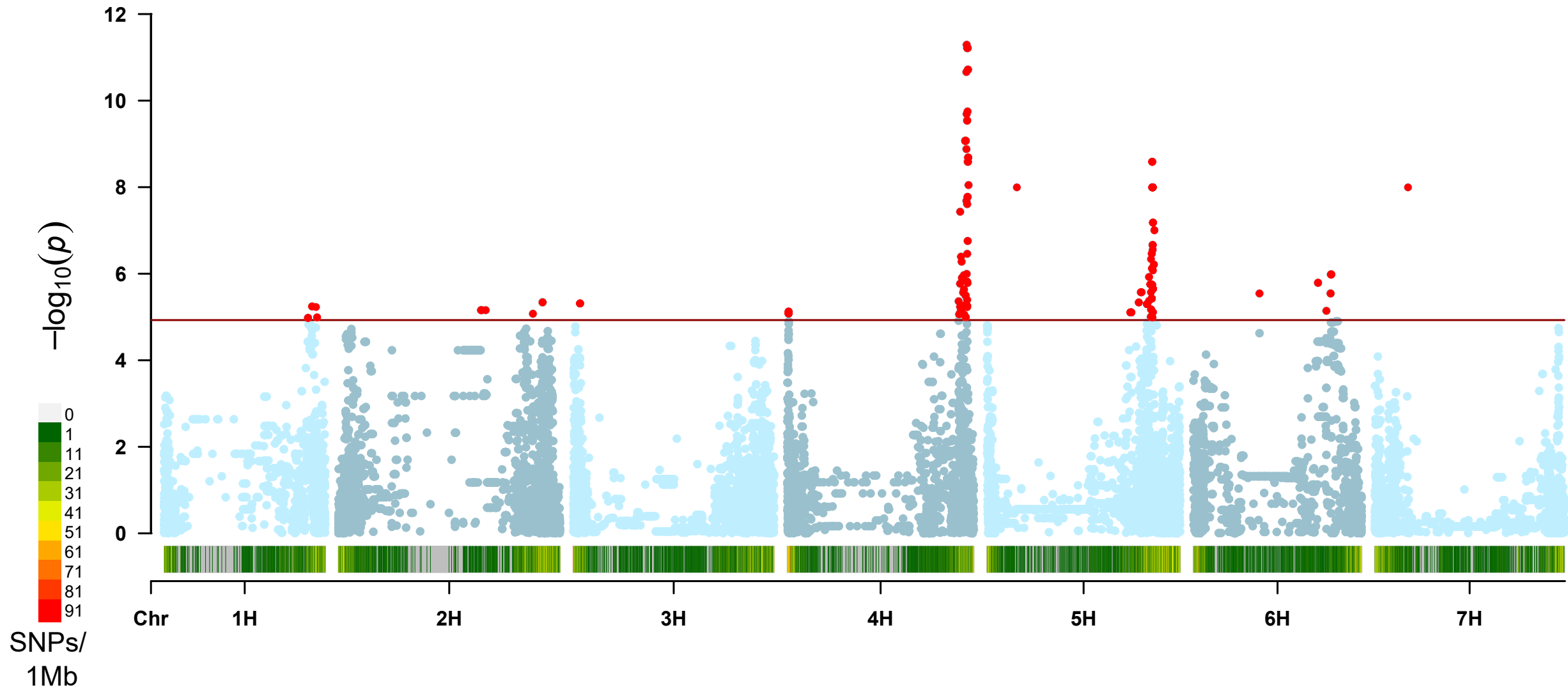
Q – Ancestry coefficient data obtained from STRUCTURE analysis (Pritchard et al. 2000)

The PPP Barley Consortium

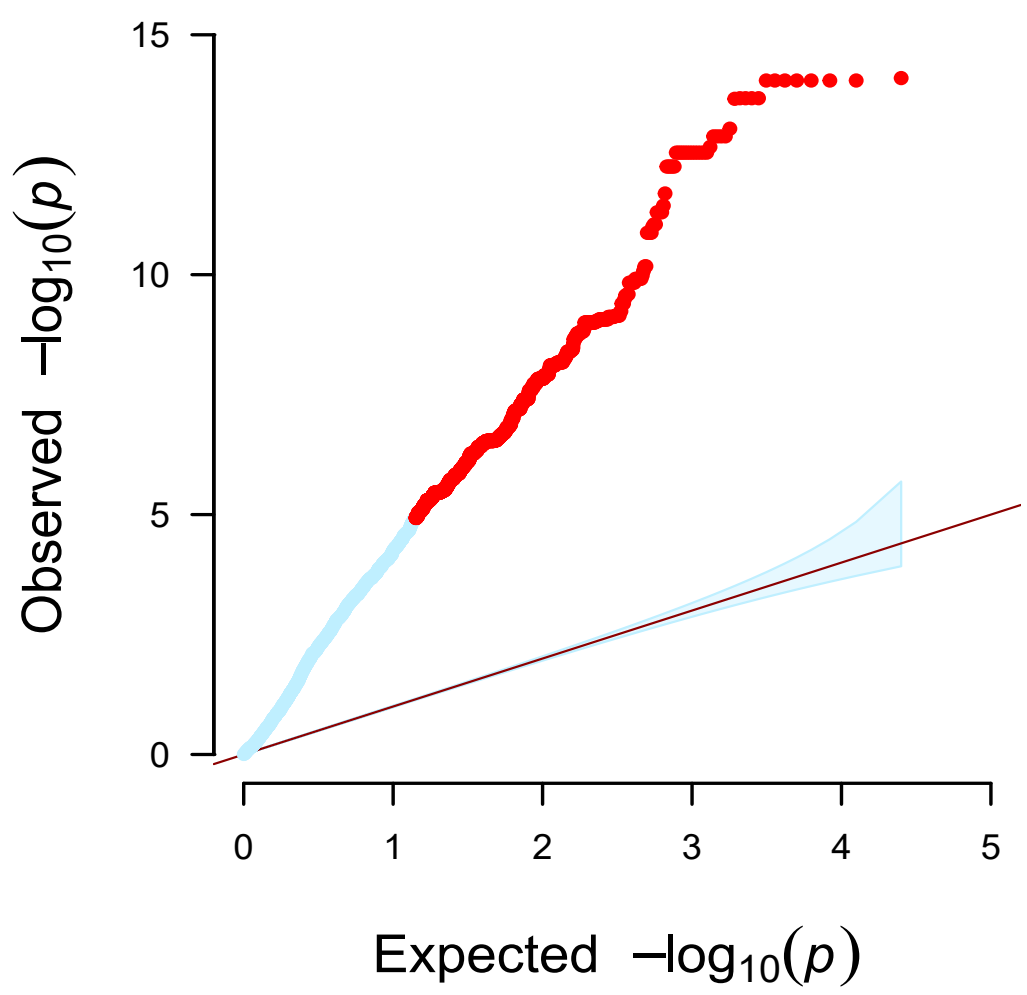
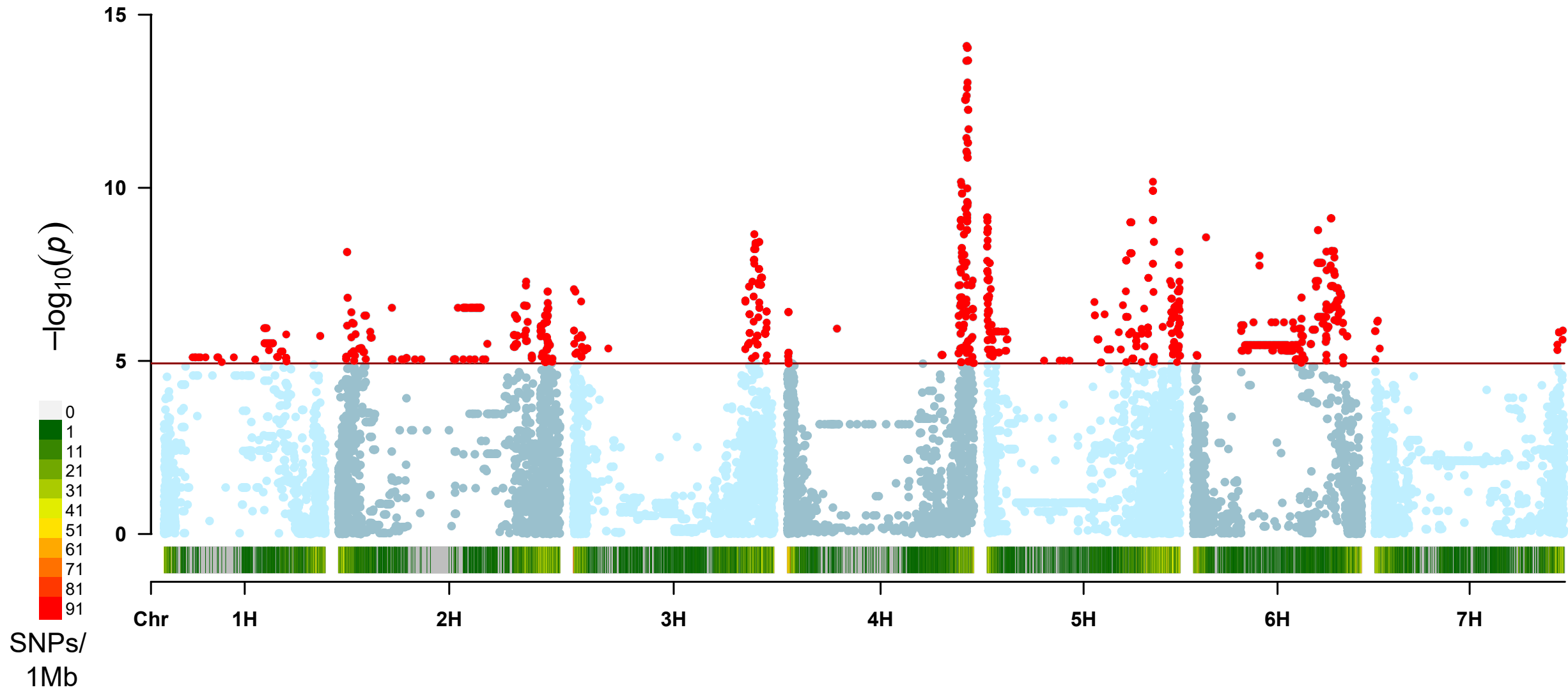
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Jihad Orabi (Nordic Seed A/S, Kornmarken 1, 8464 Galten, Denmark),
Nana Vagndorf Nordestgaard (Nordic Seed A/S, Kornmarken 1, 8464 Galten, Denmark),
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Magnus Göransson (The Agricultural University of Iceland, Faculty of Land and Animal Resources, Hvanneyri, 311 Borgarnes, Iceland)

MAGIC 1+2

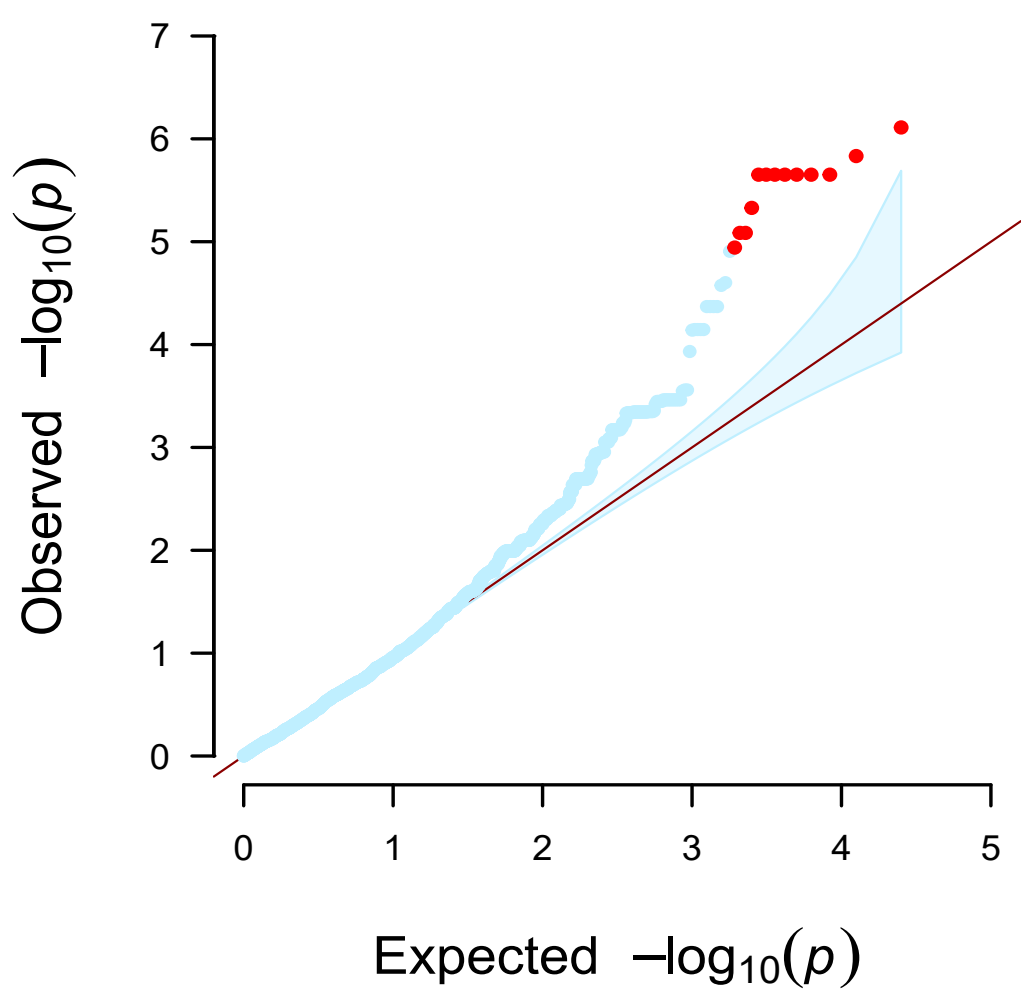
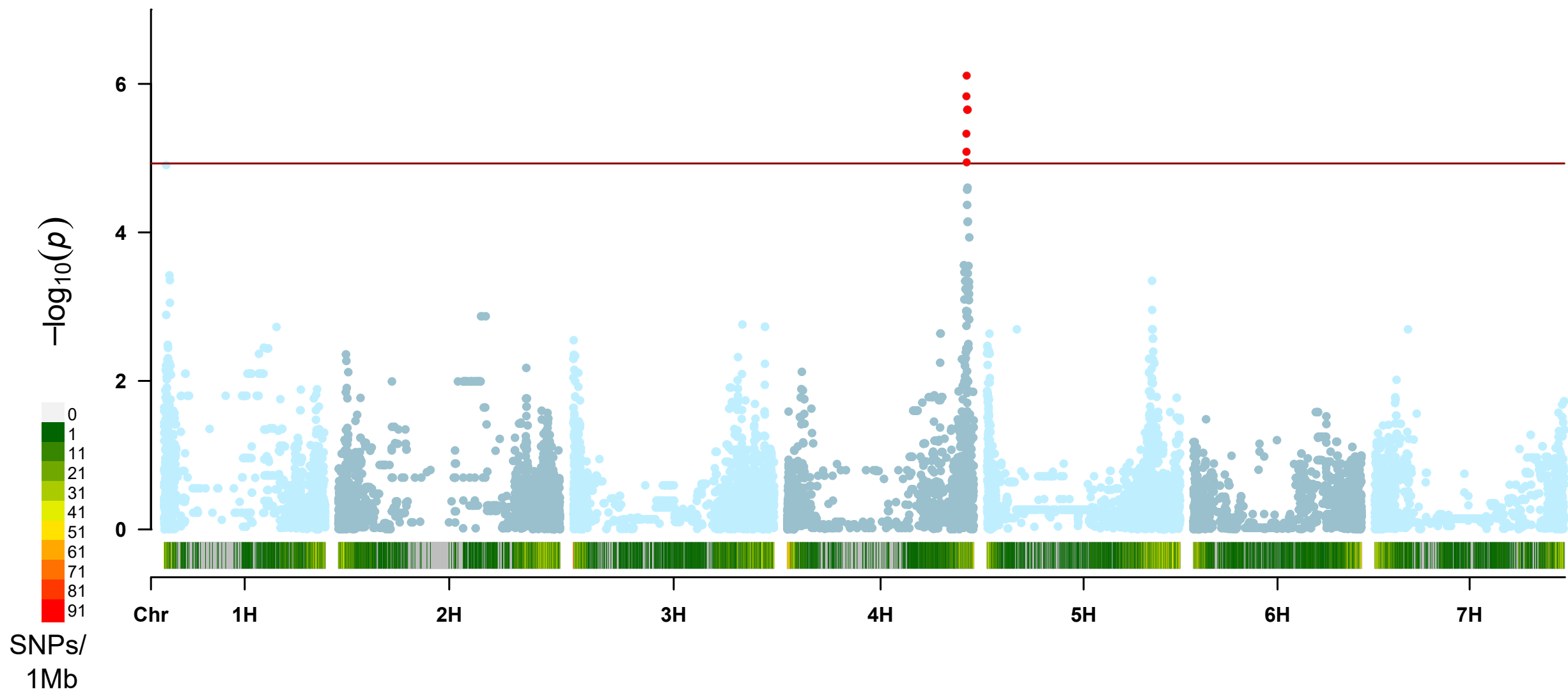
GLM + K + Q



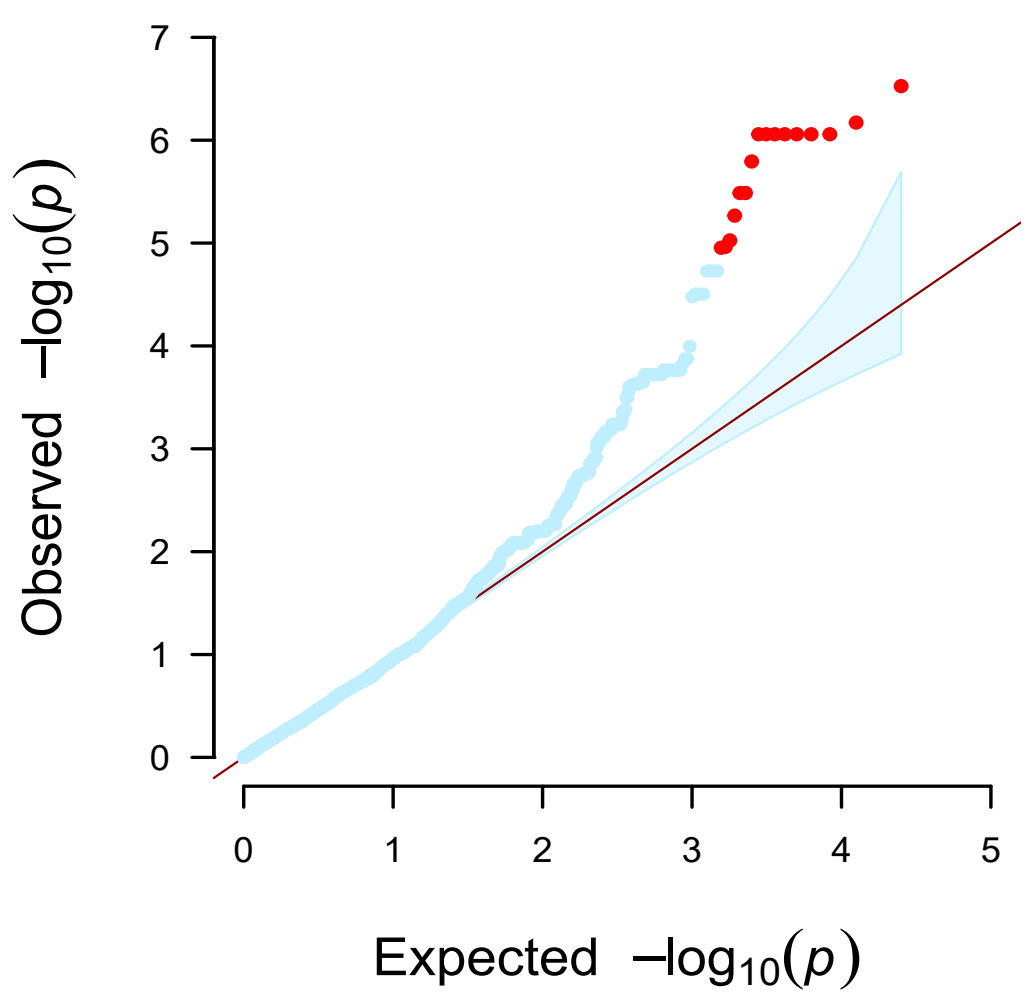
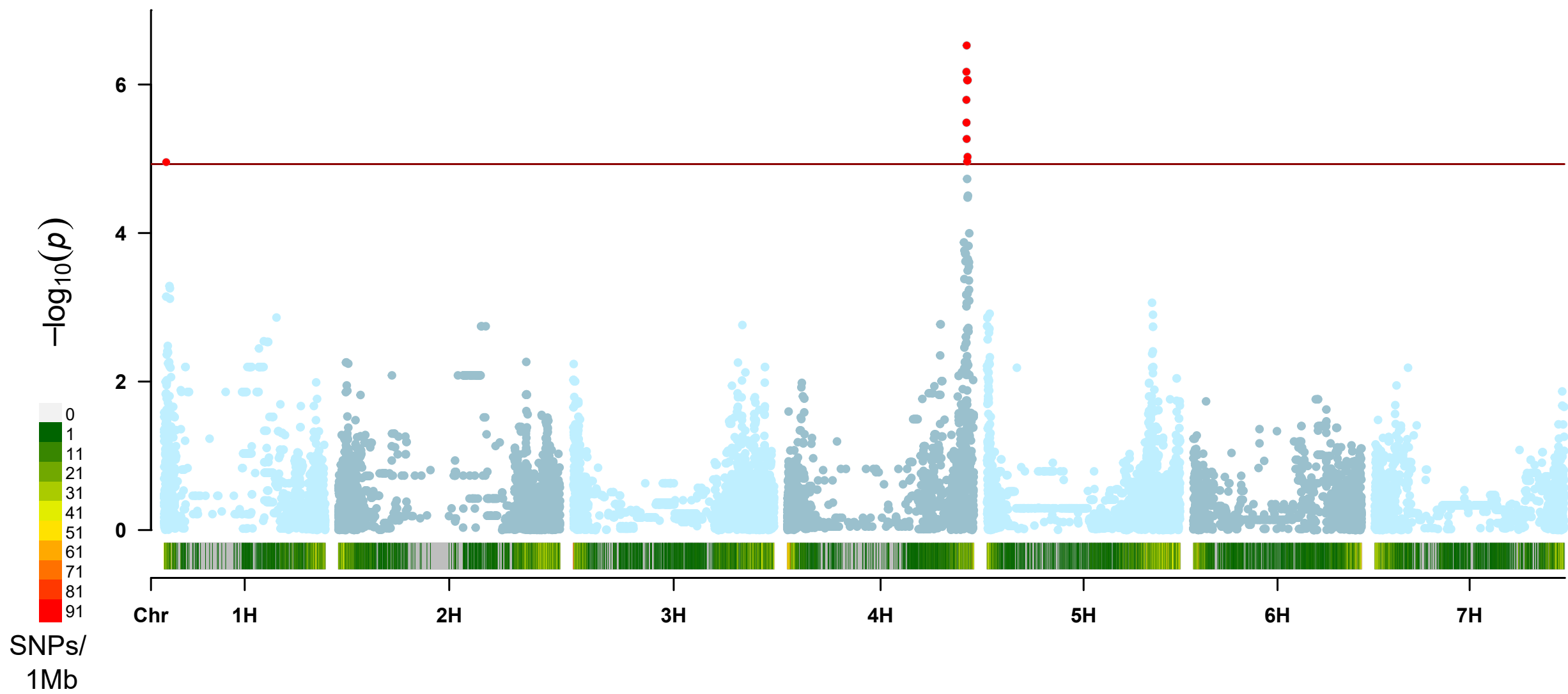
GLM + K



MLM + K + Q

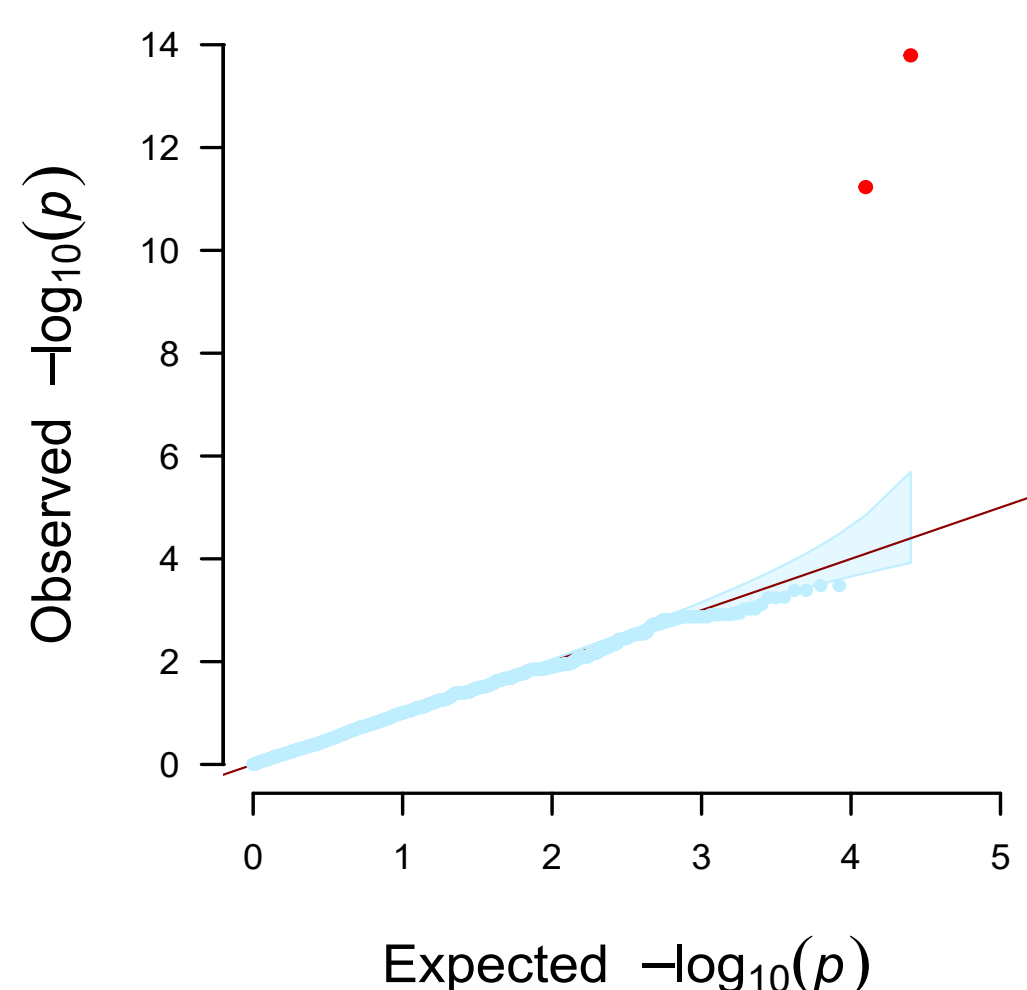
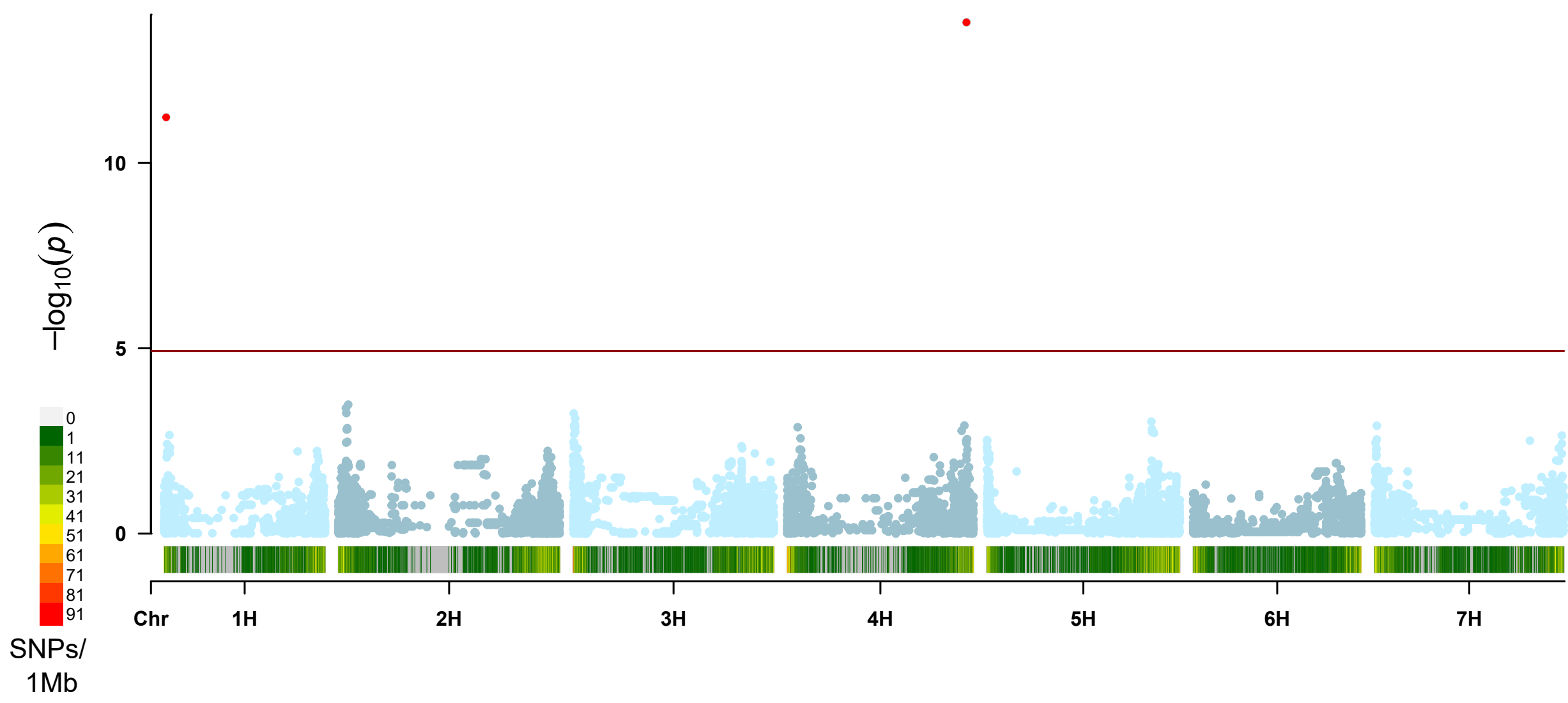


MLM + K

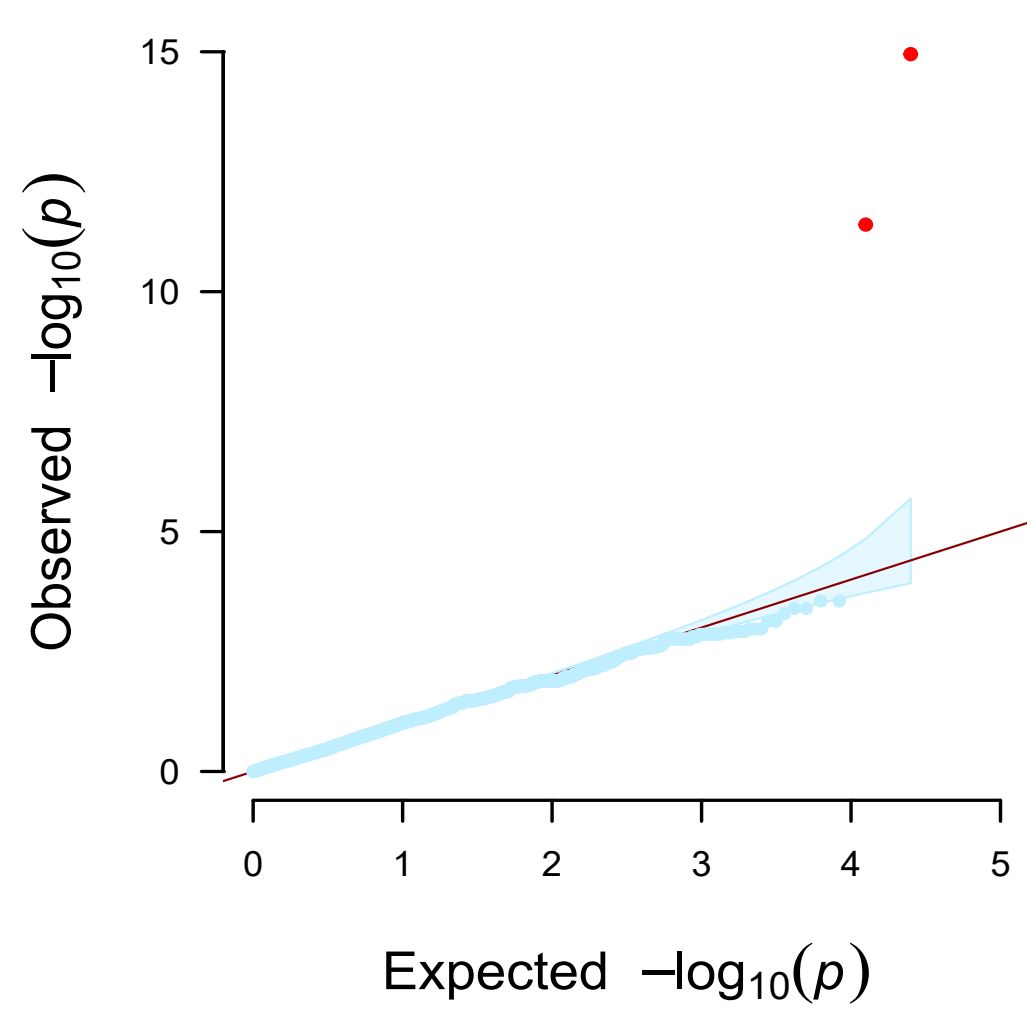
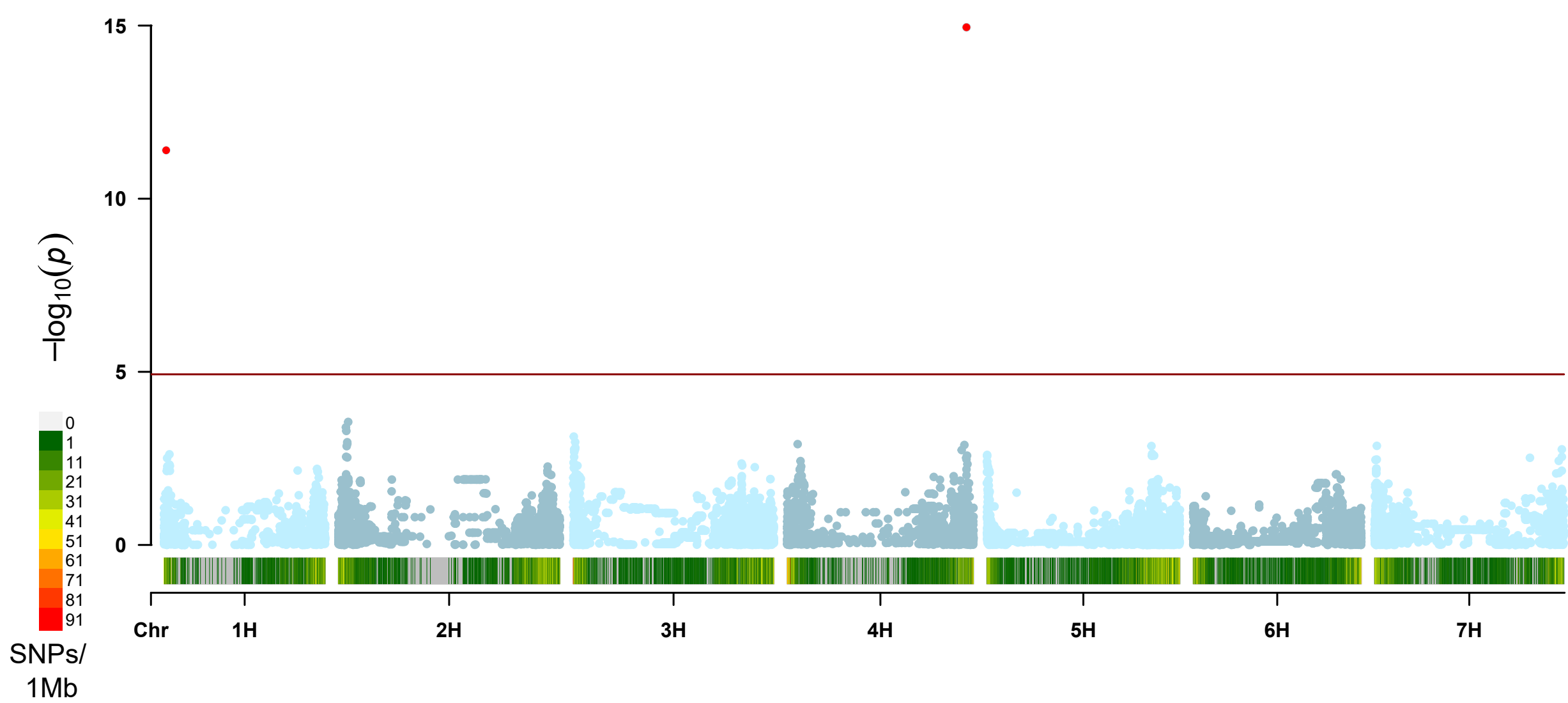


MAGIC 1+2

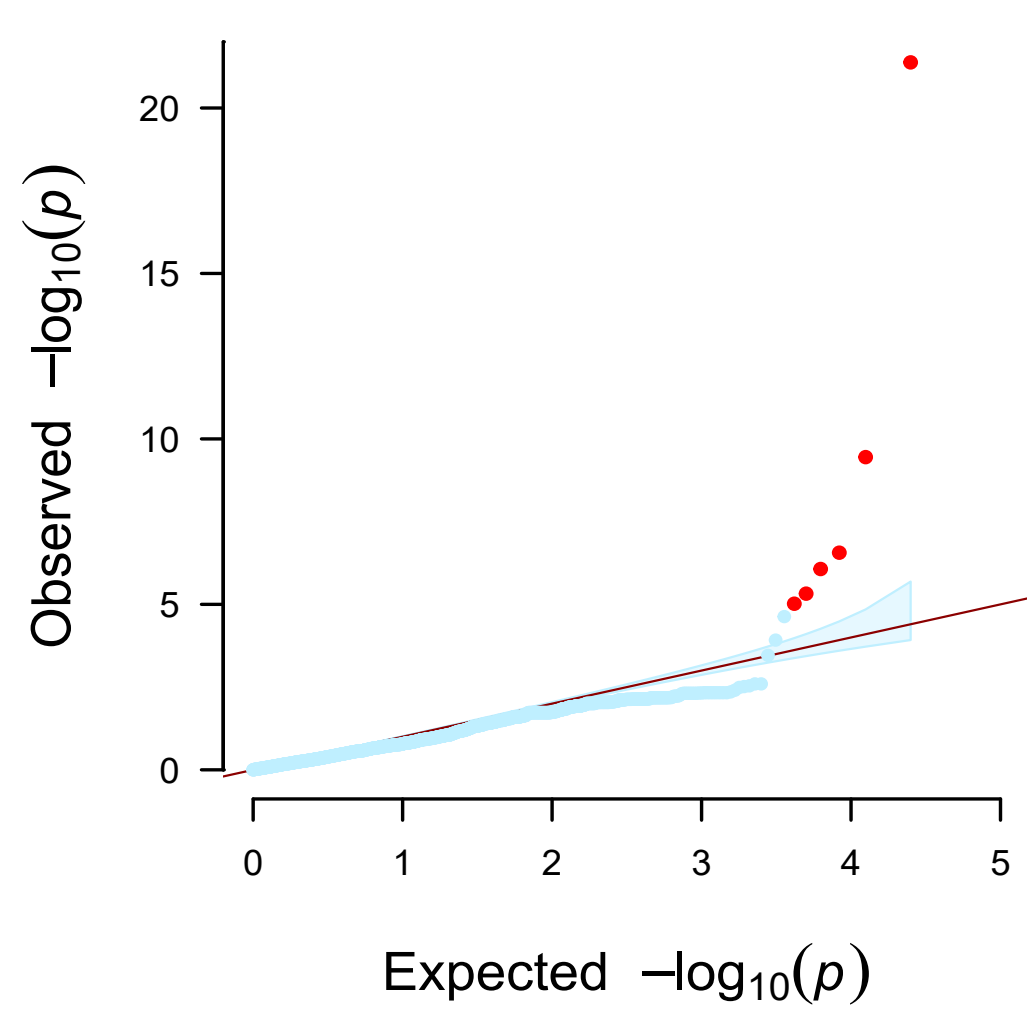
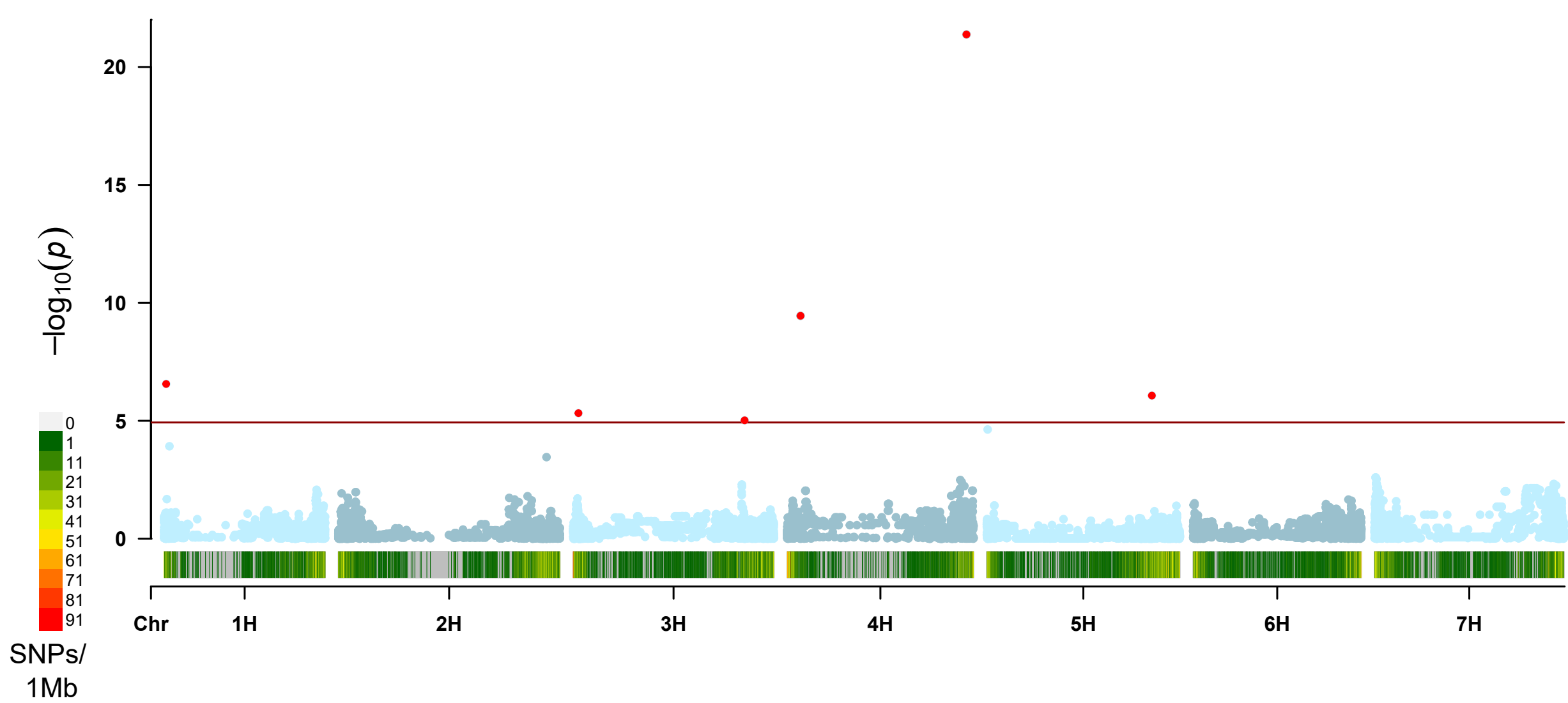
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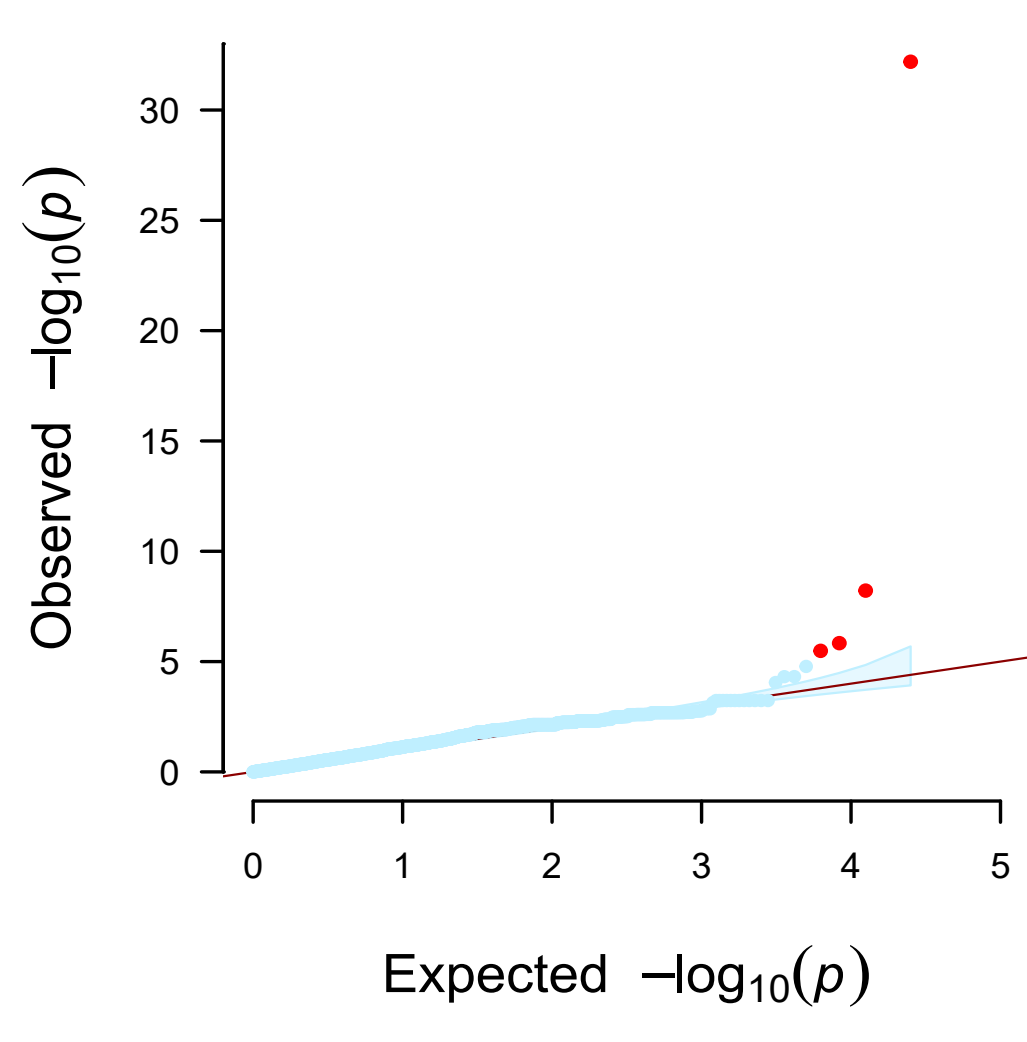
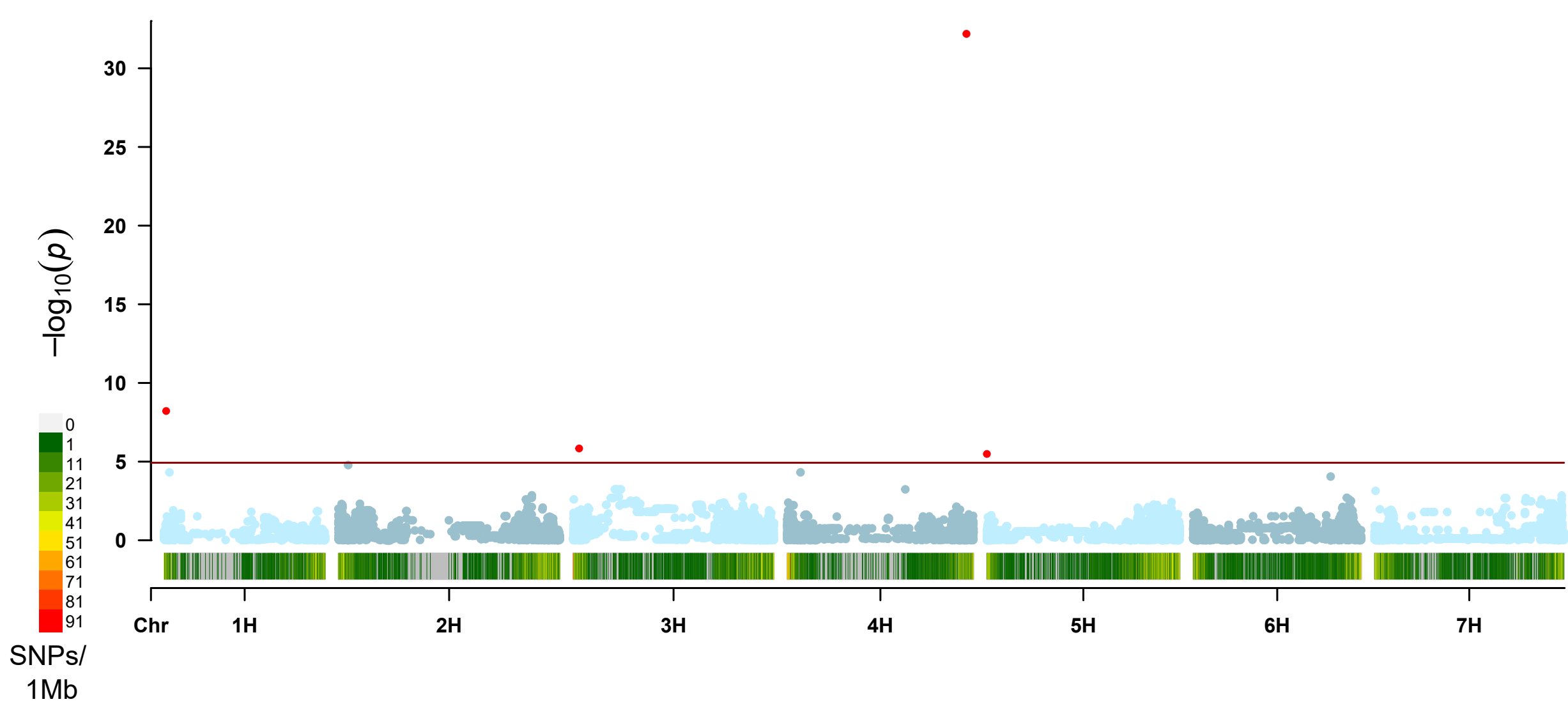
MLMM + K



FarmCPU + K + Q

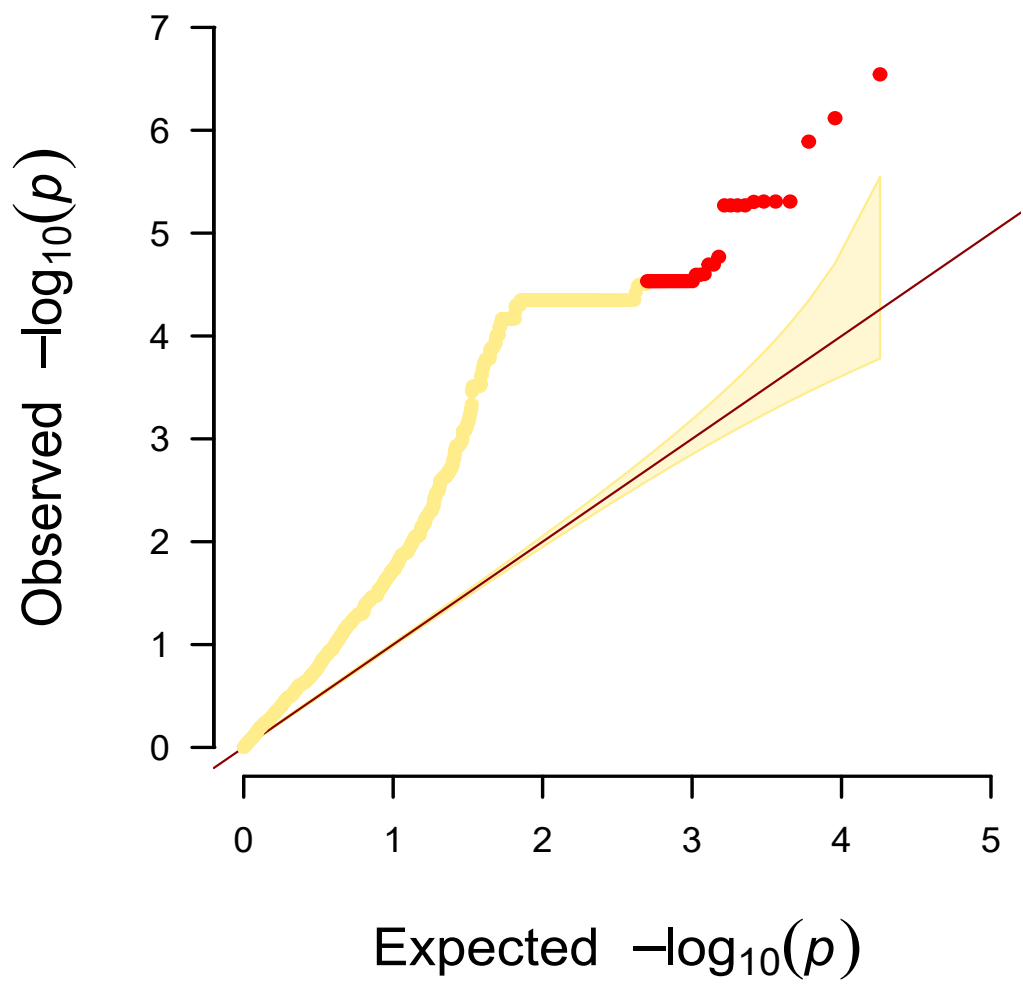
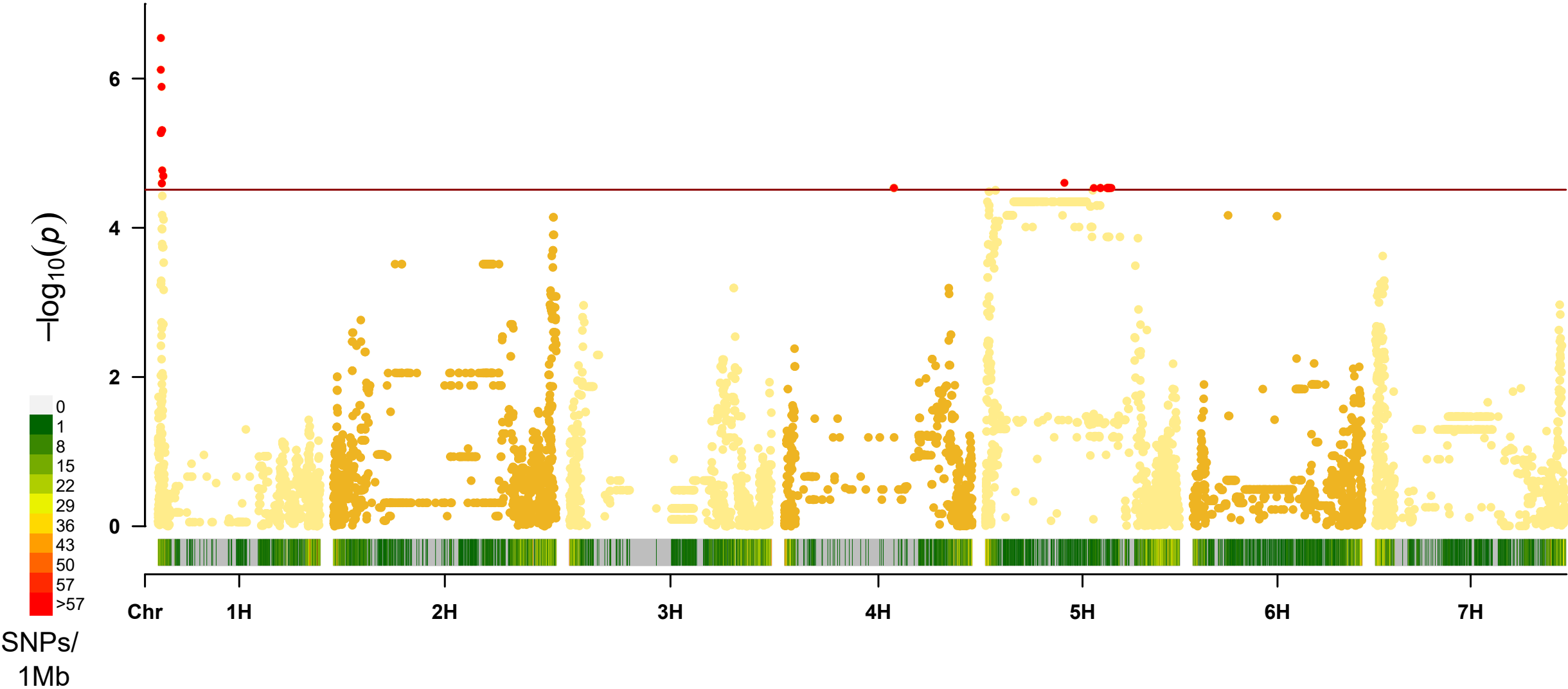


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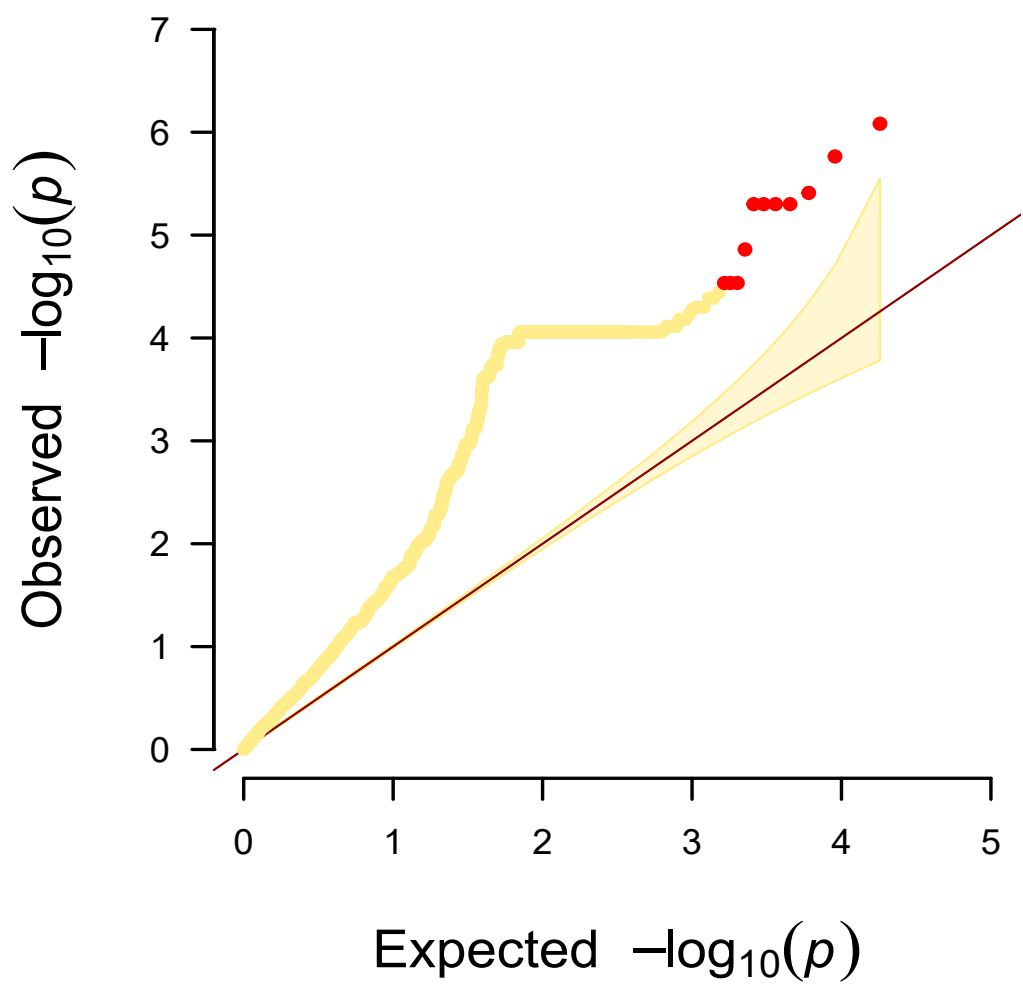
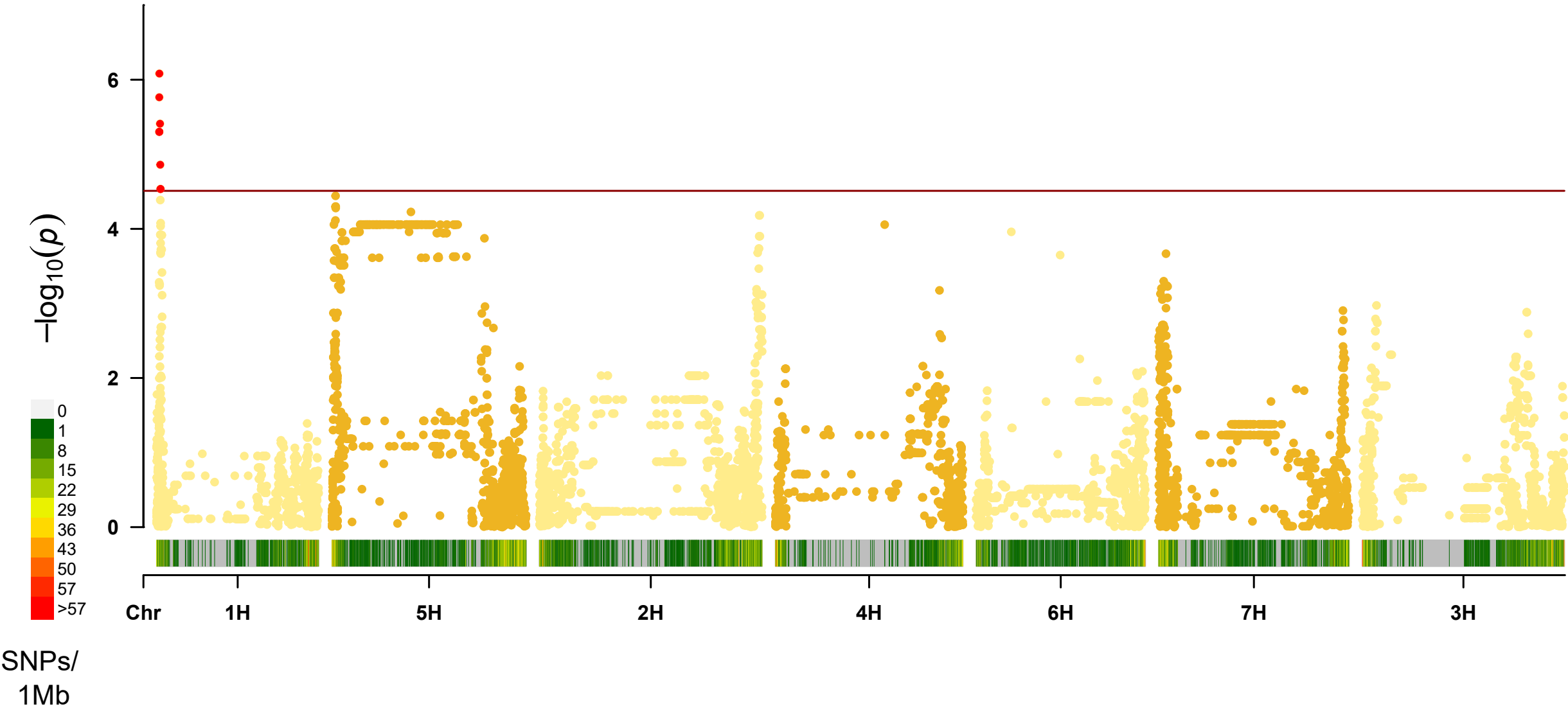


MAGIC 3

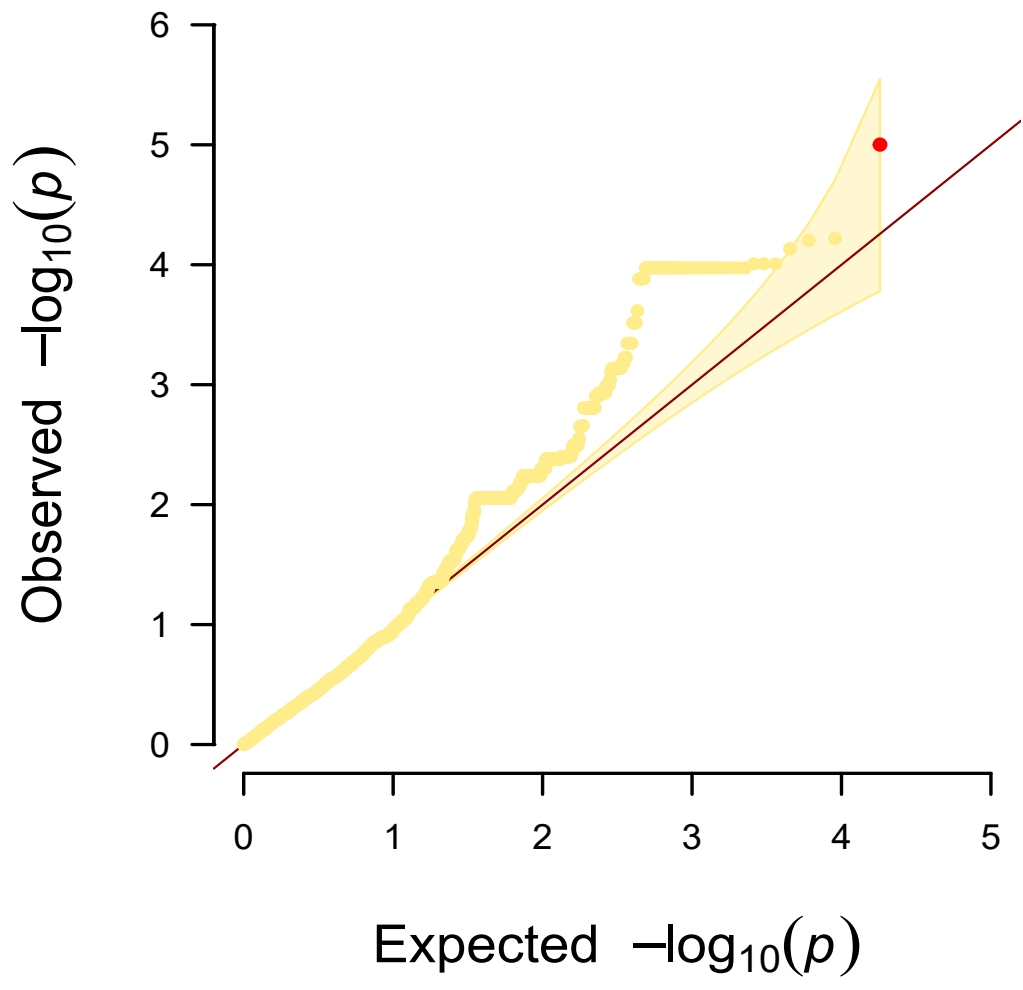
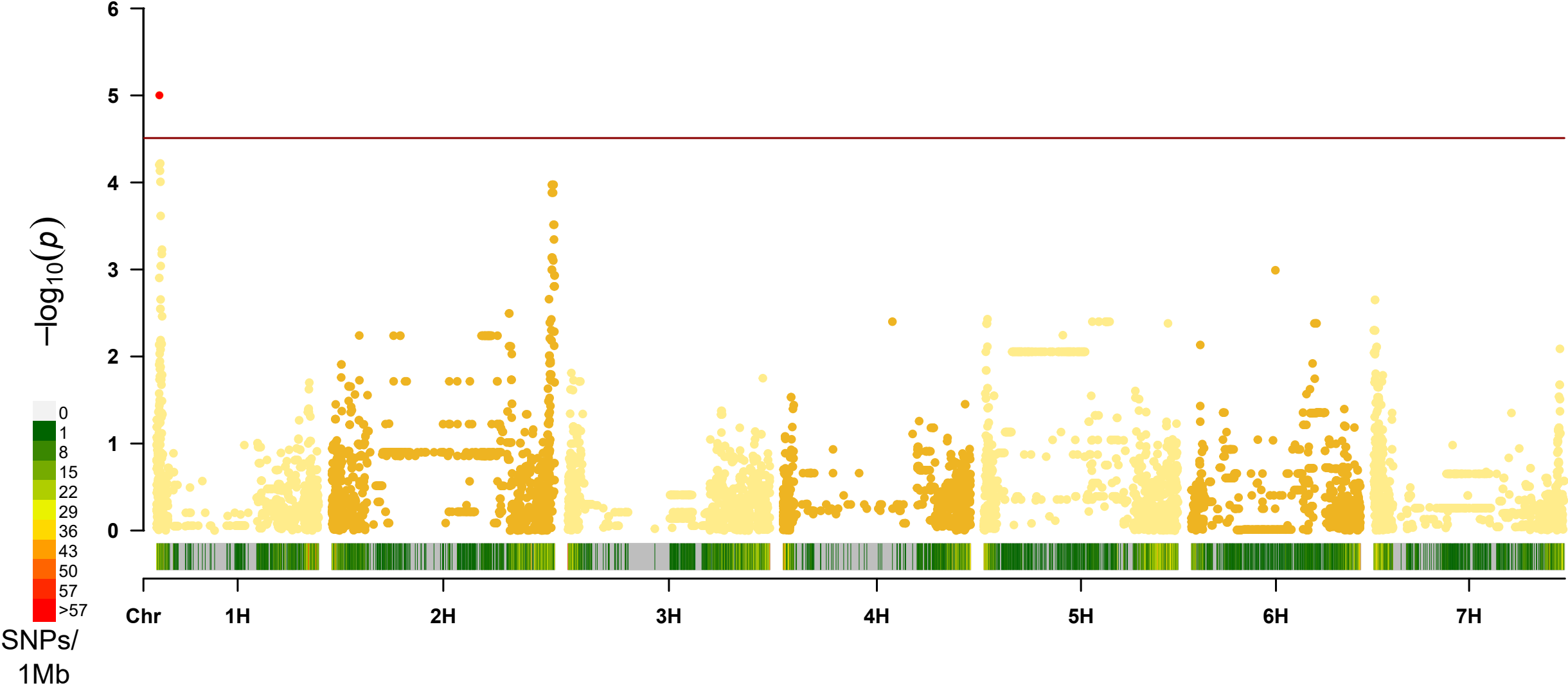
GLM + K + Q



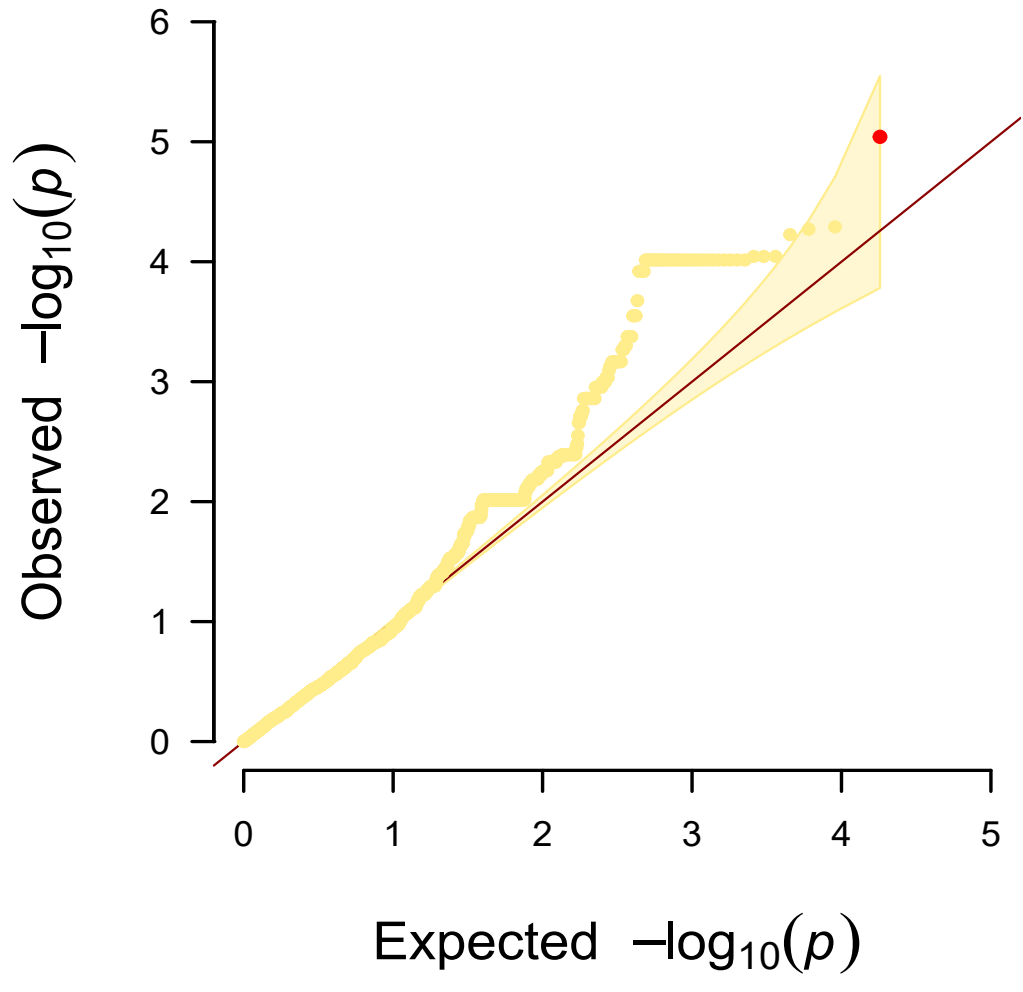
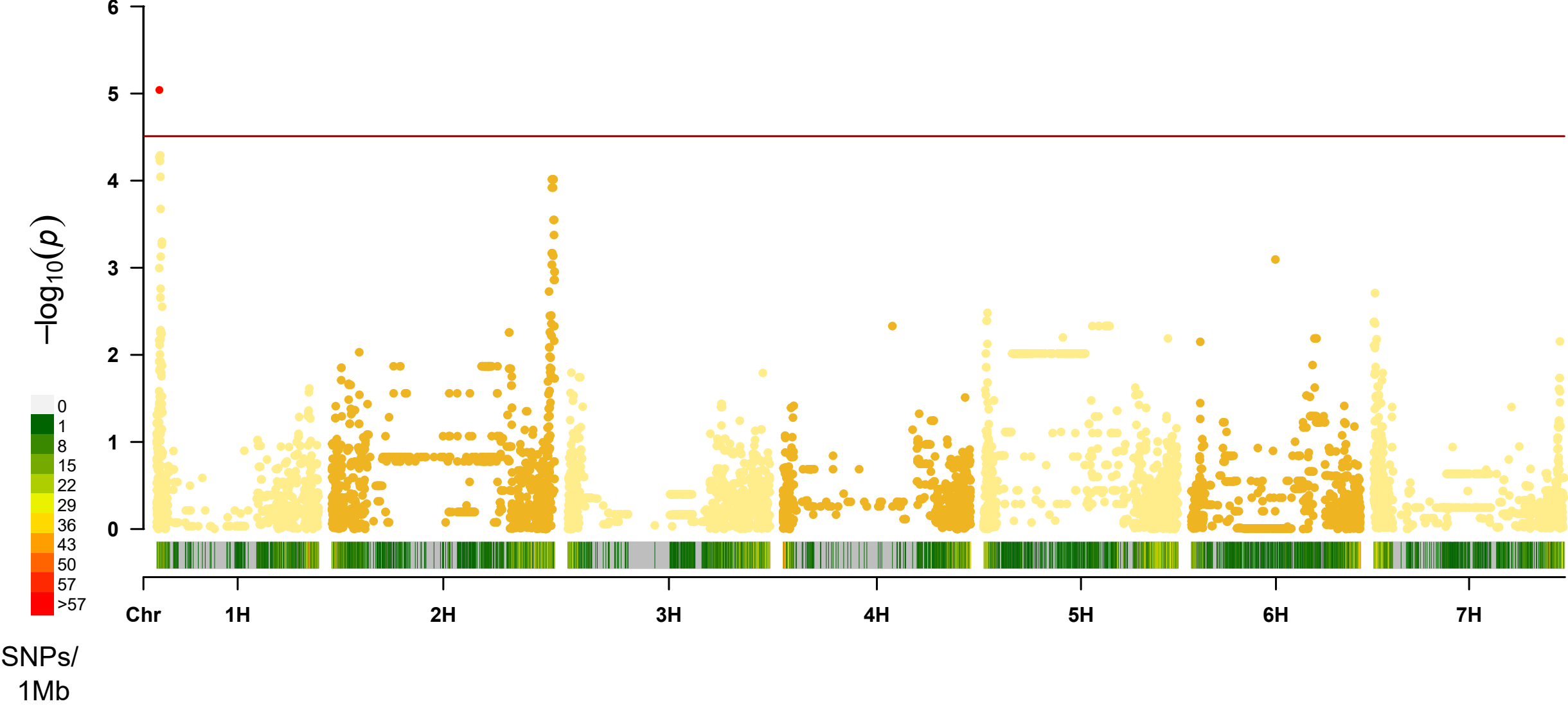
GLM + K



MLM + K + Q

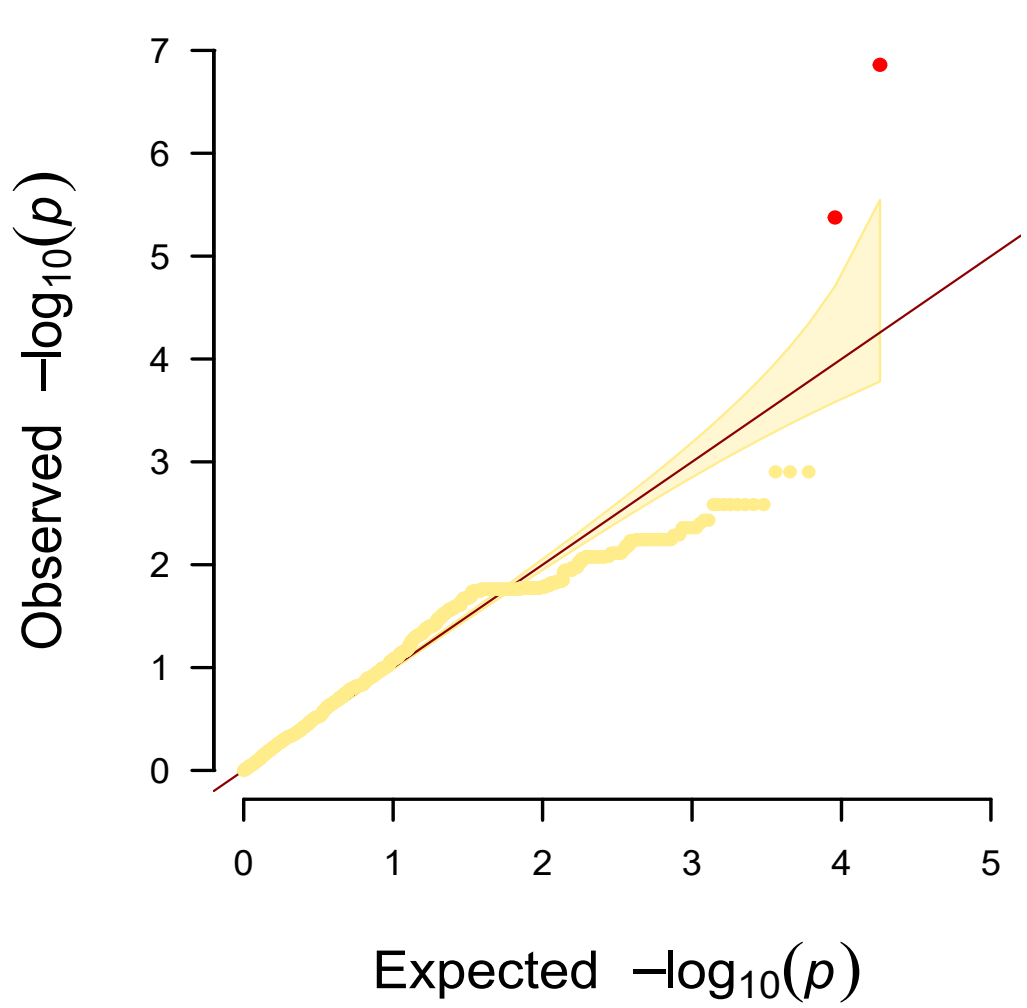
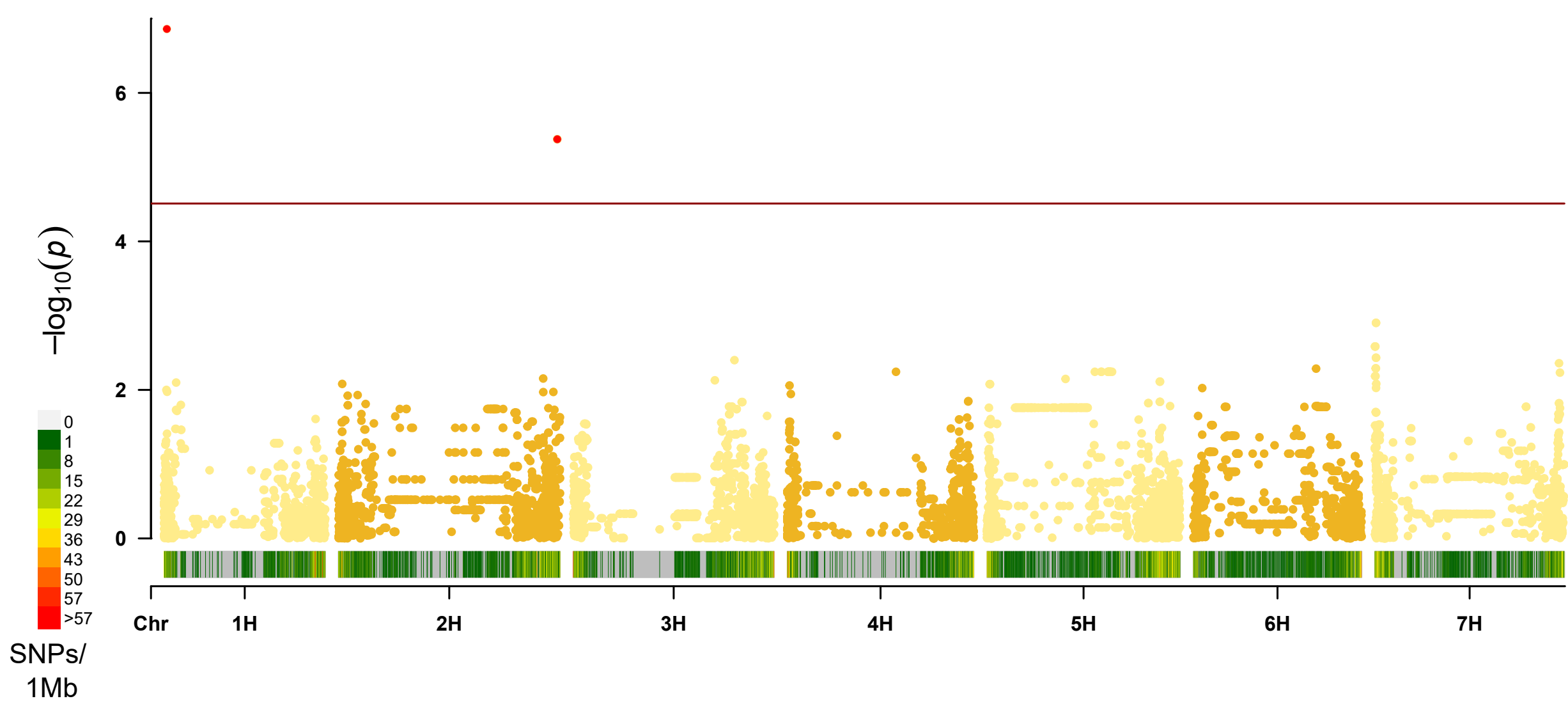


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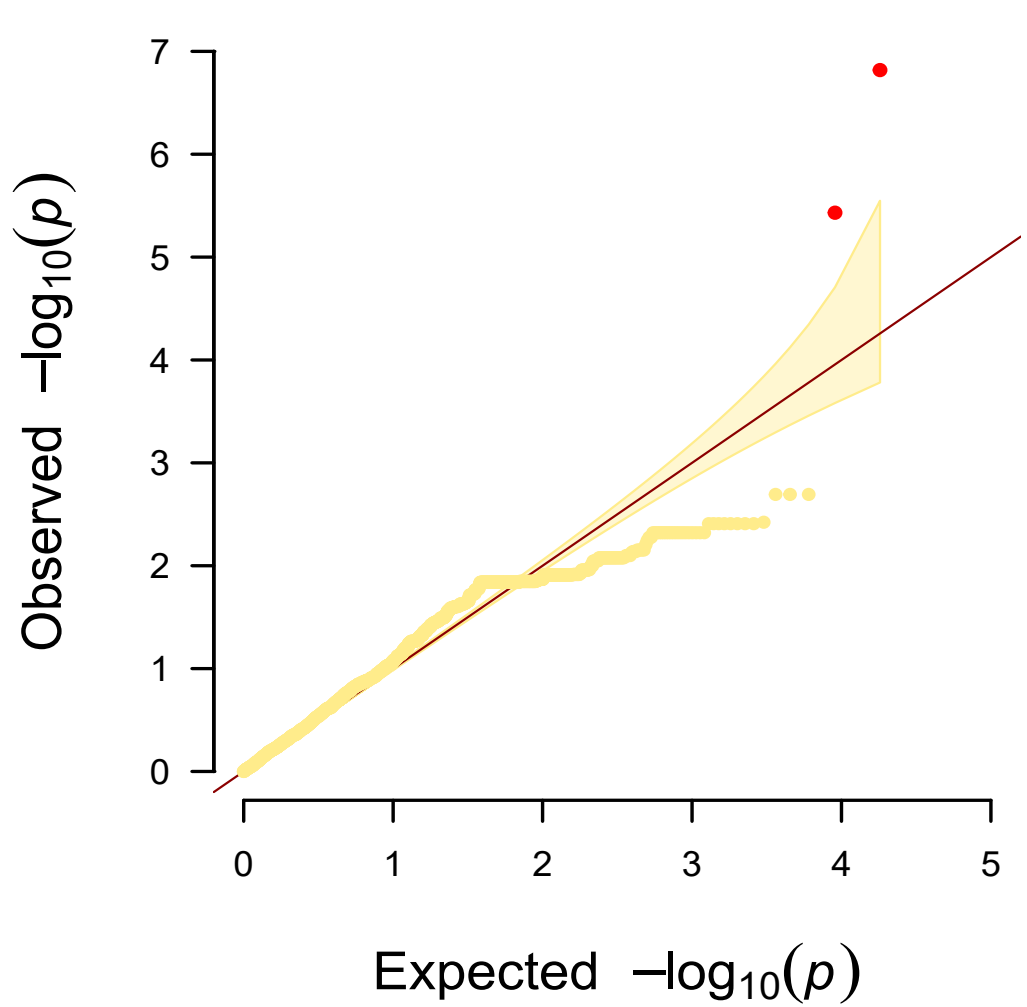
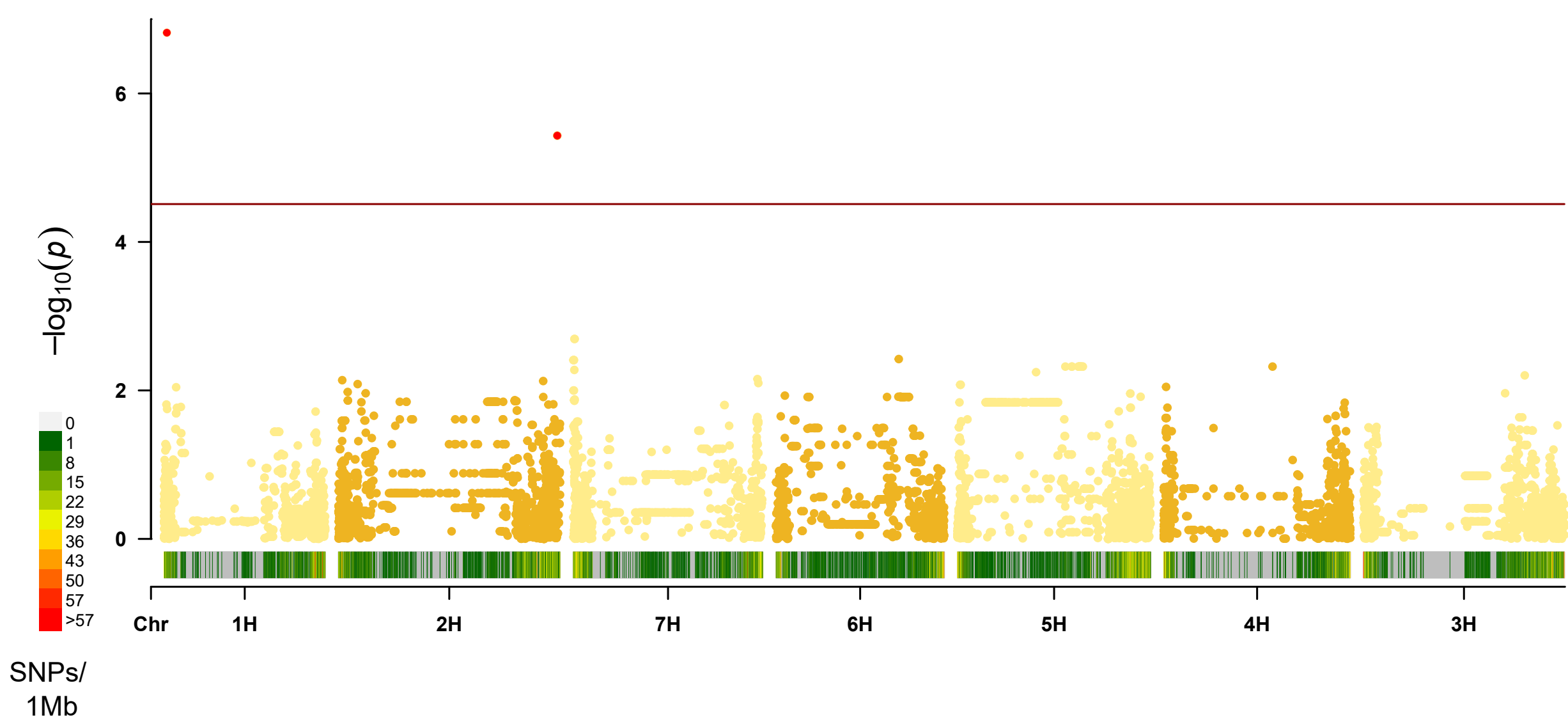


MAGIC 3

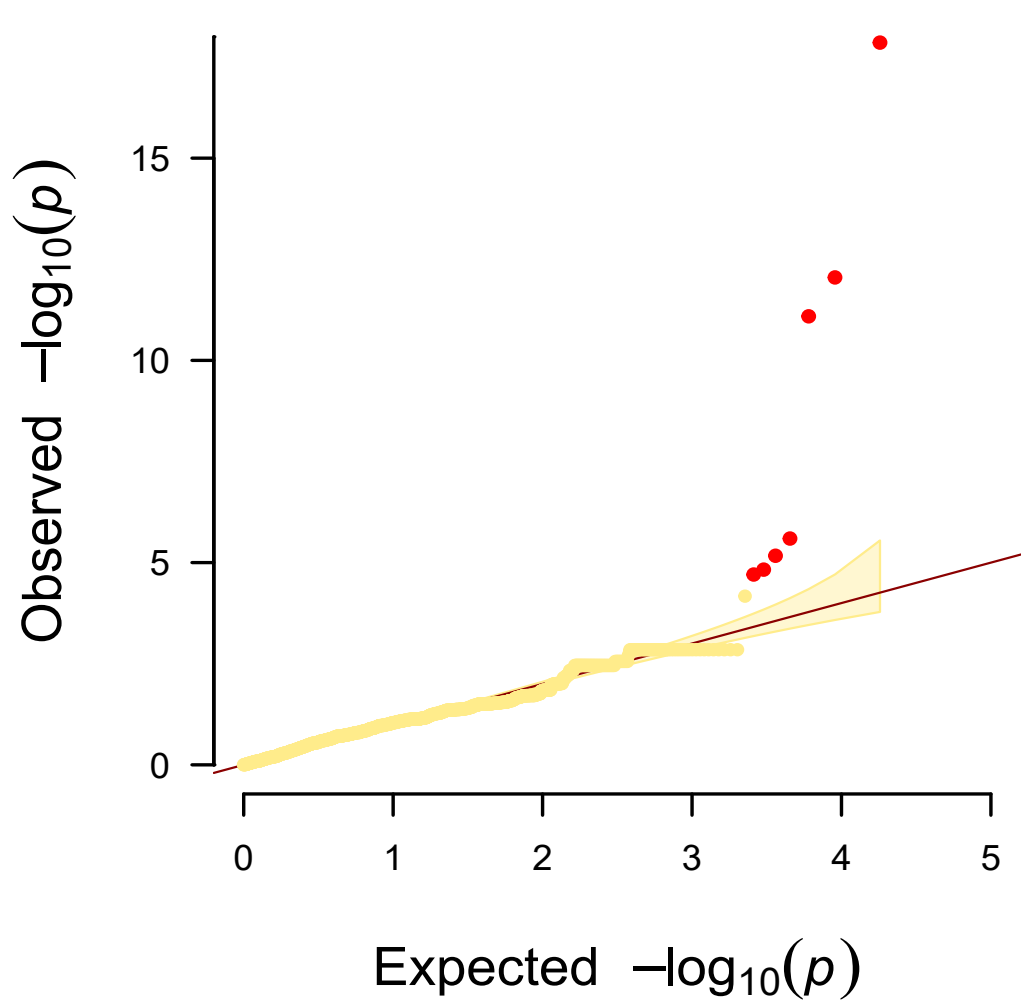
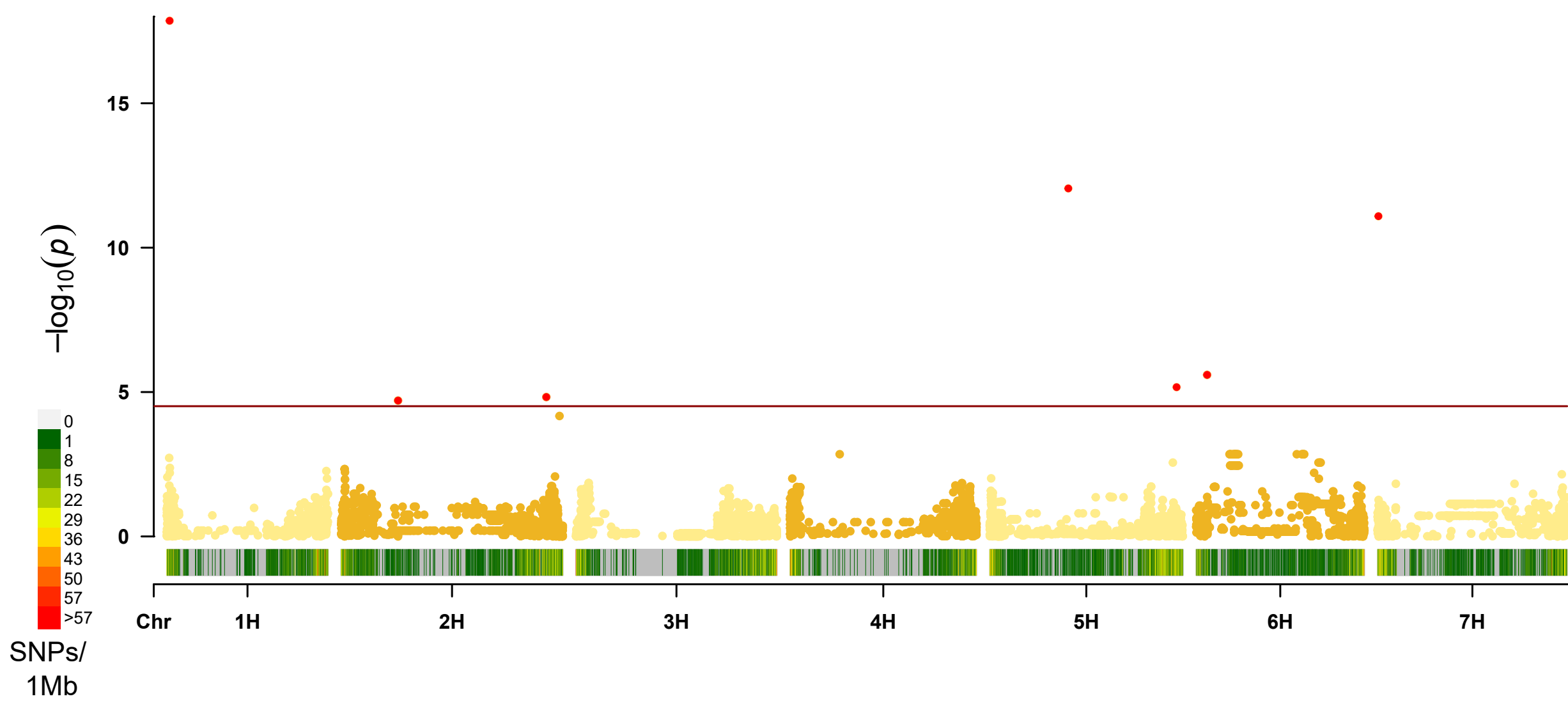
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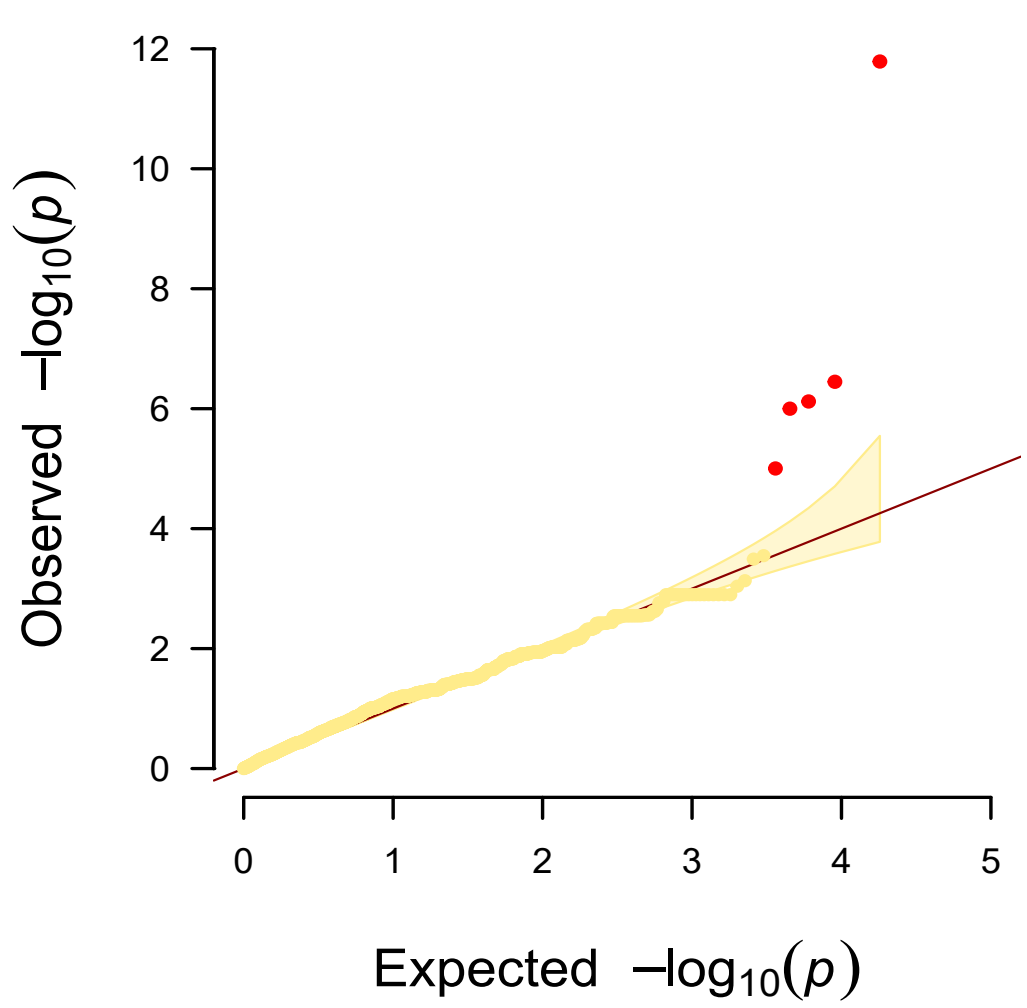
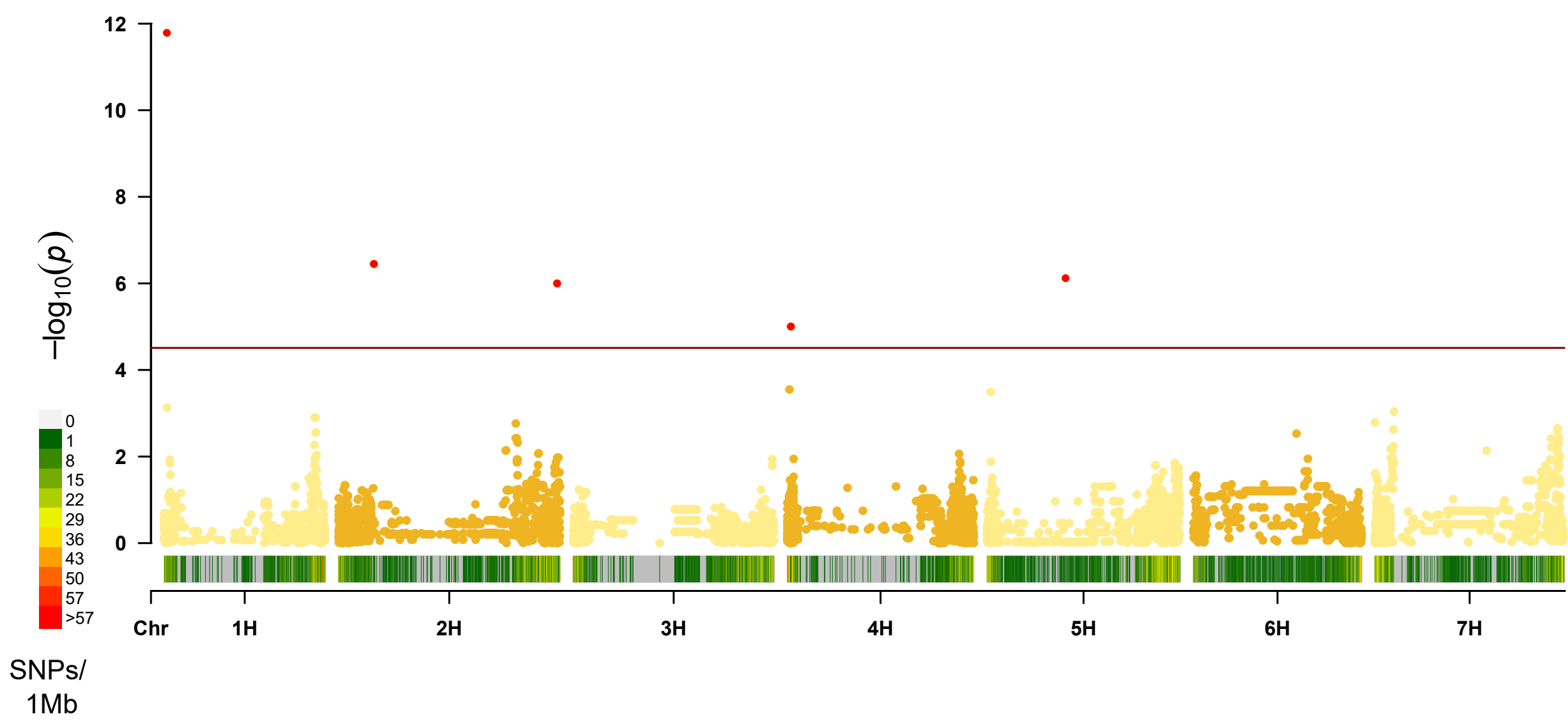
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FarmCPU + K + Q

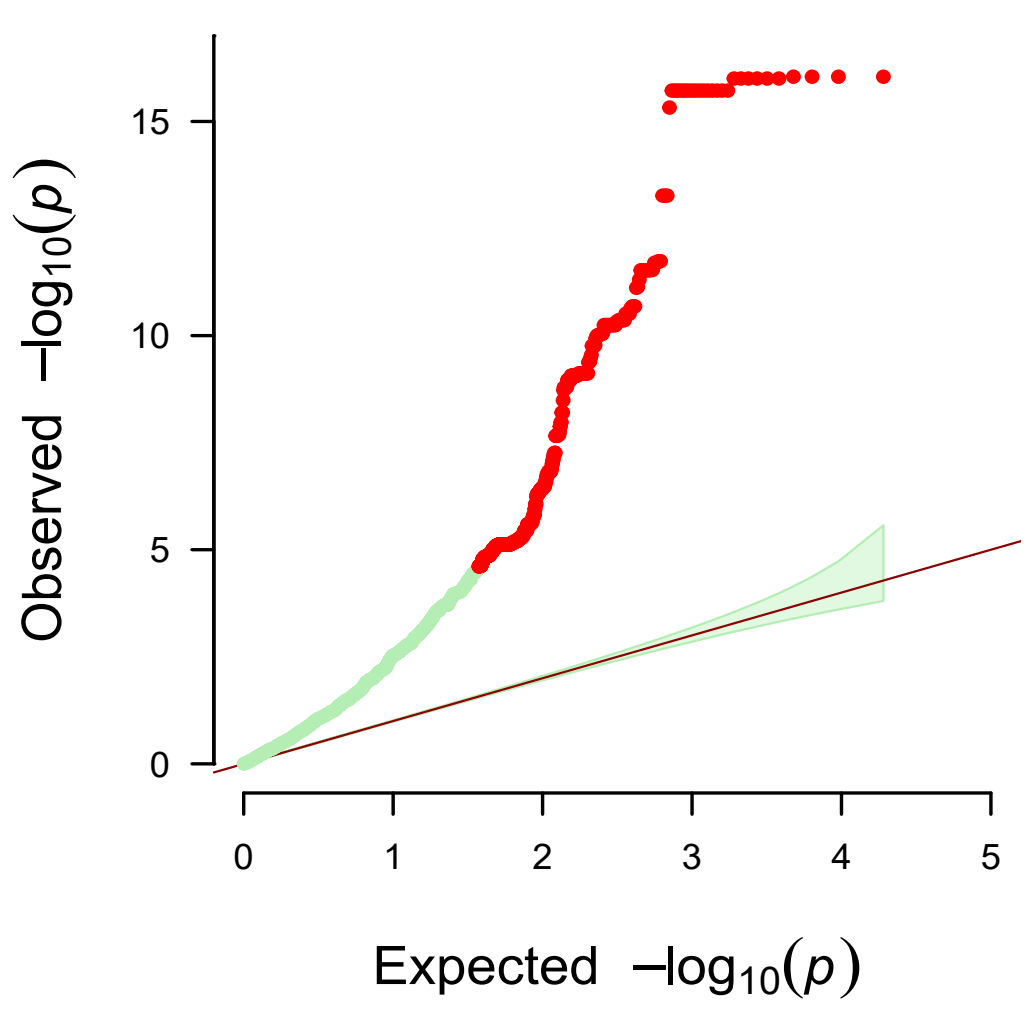
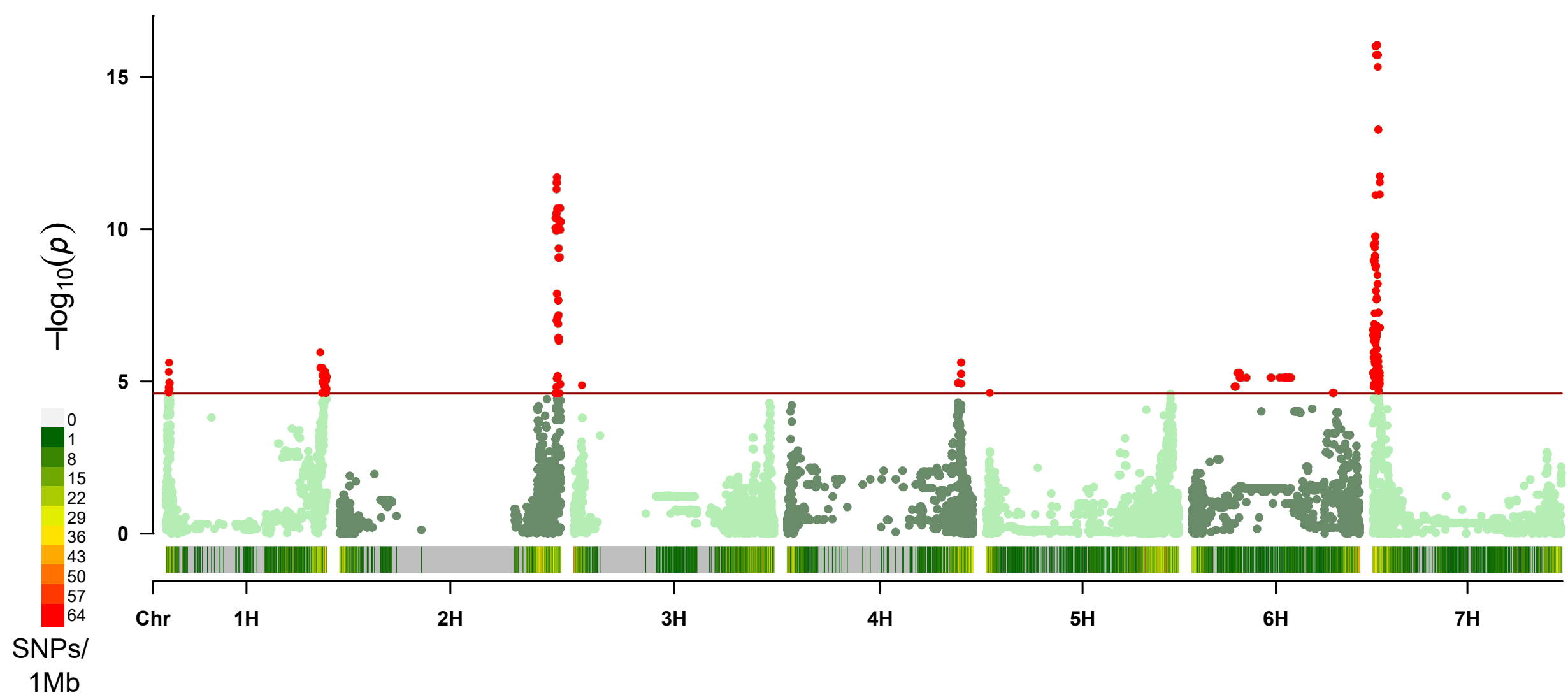


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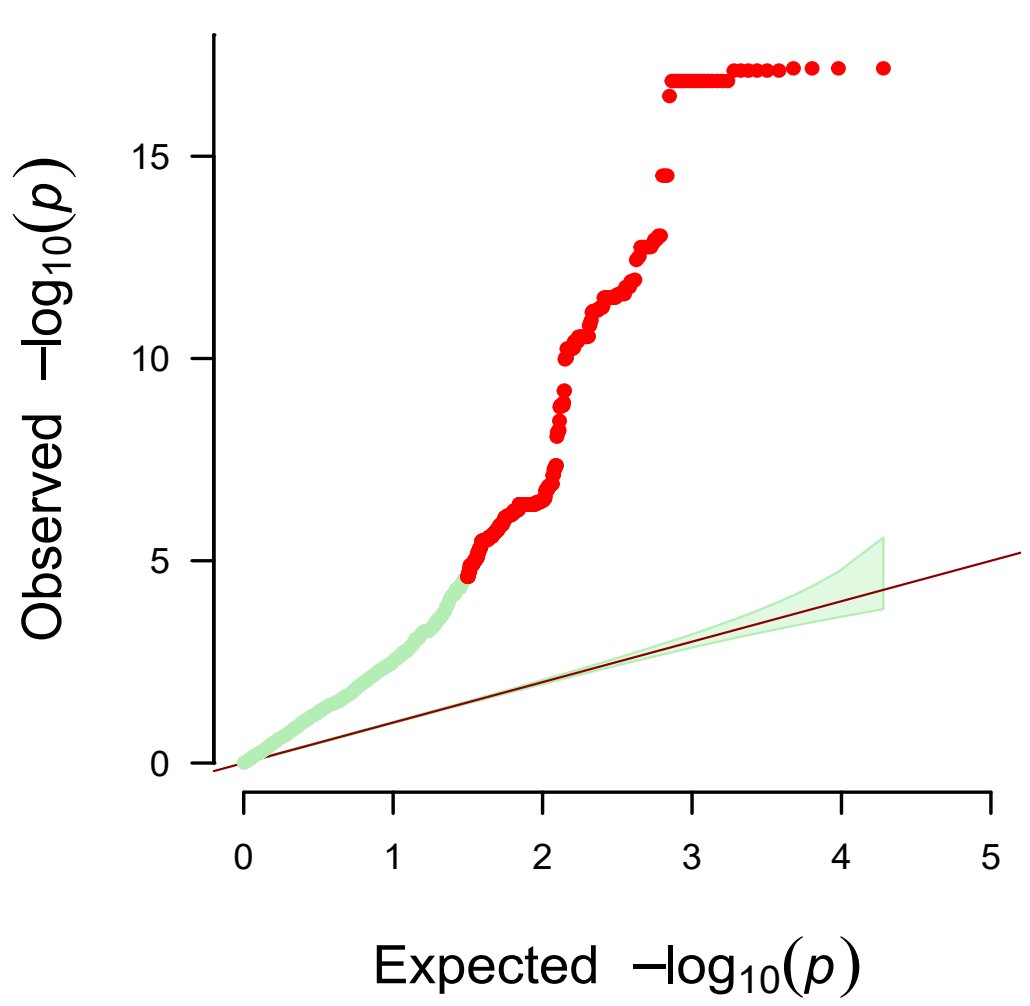
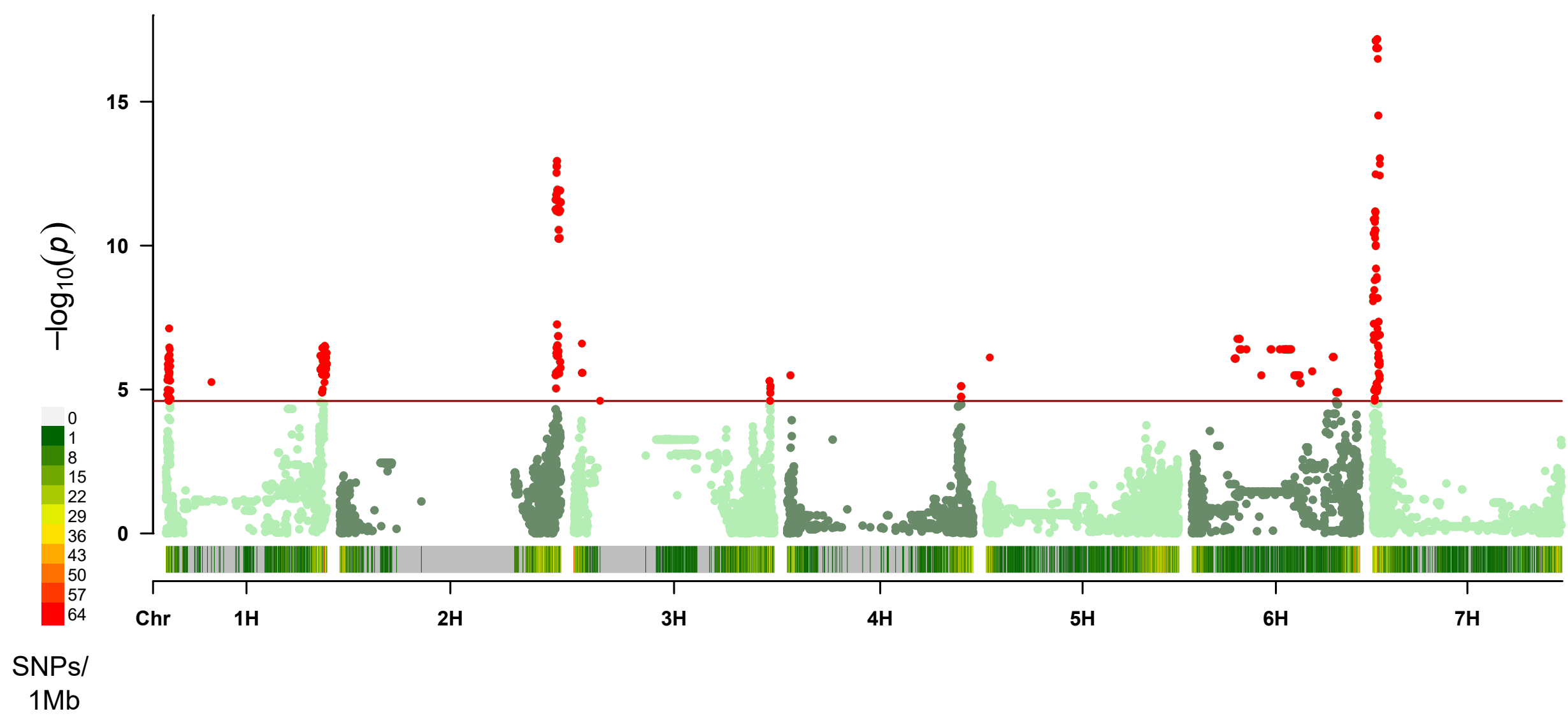


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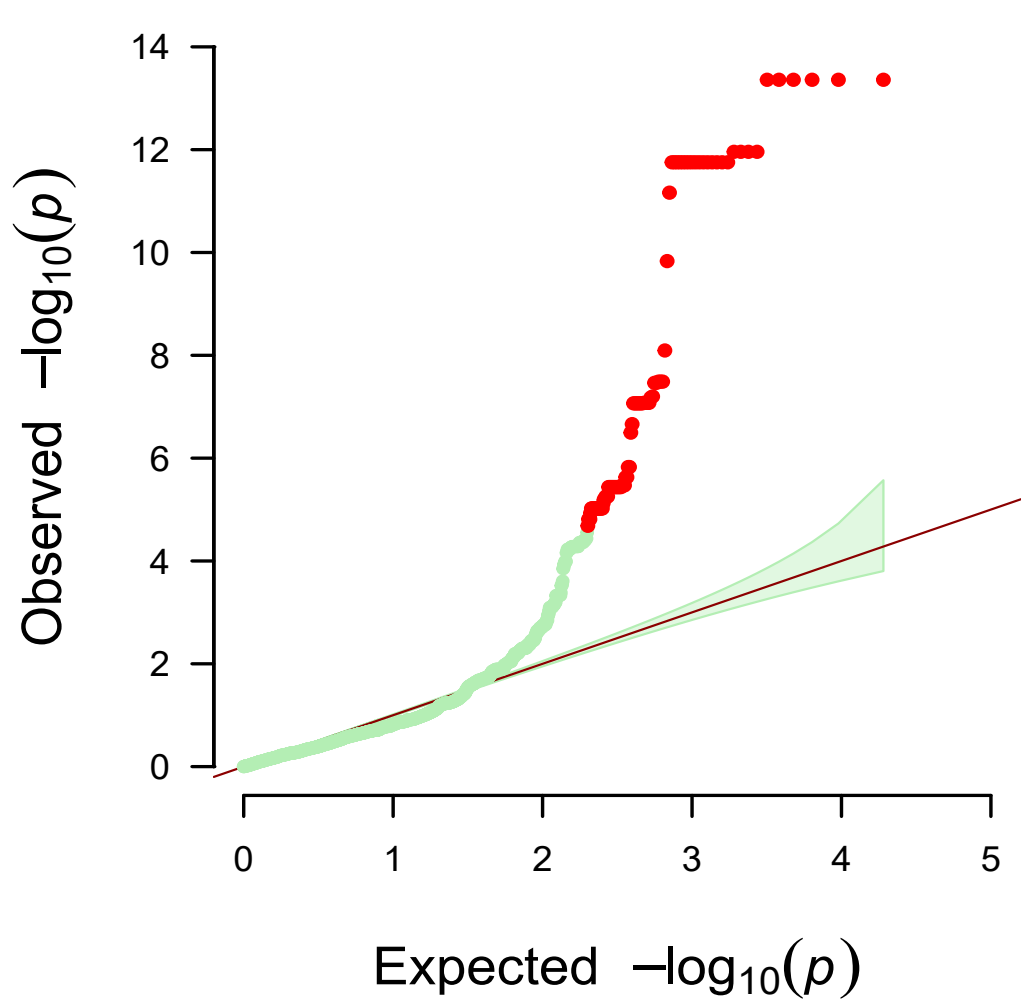
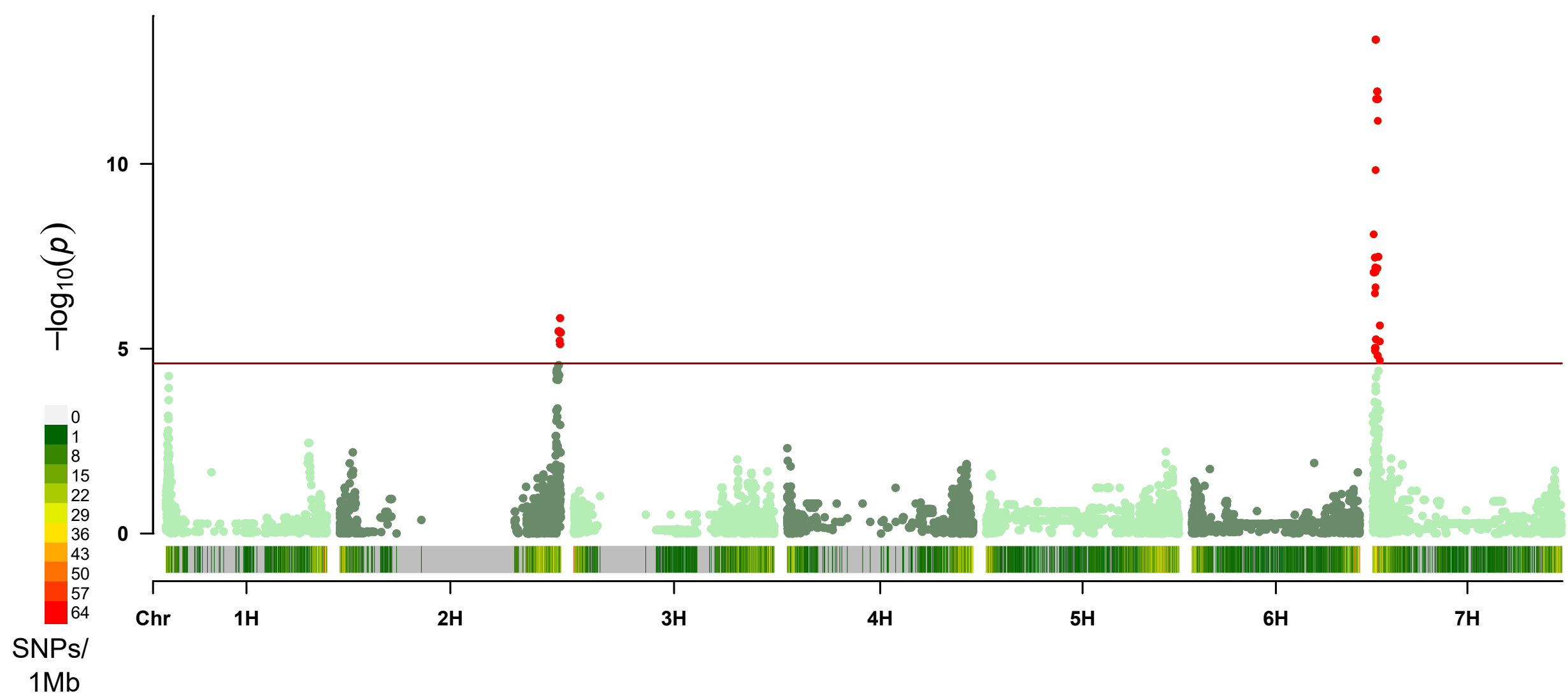
GLM + K + Q



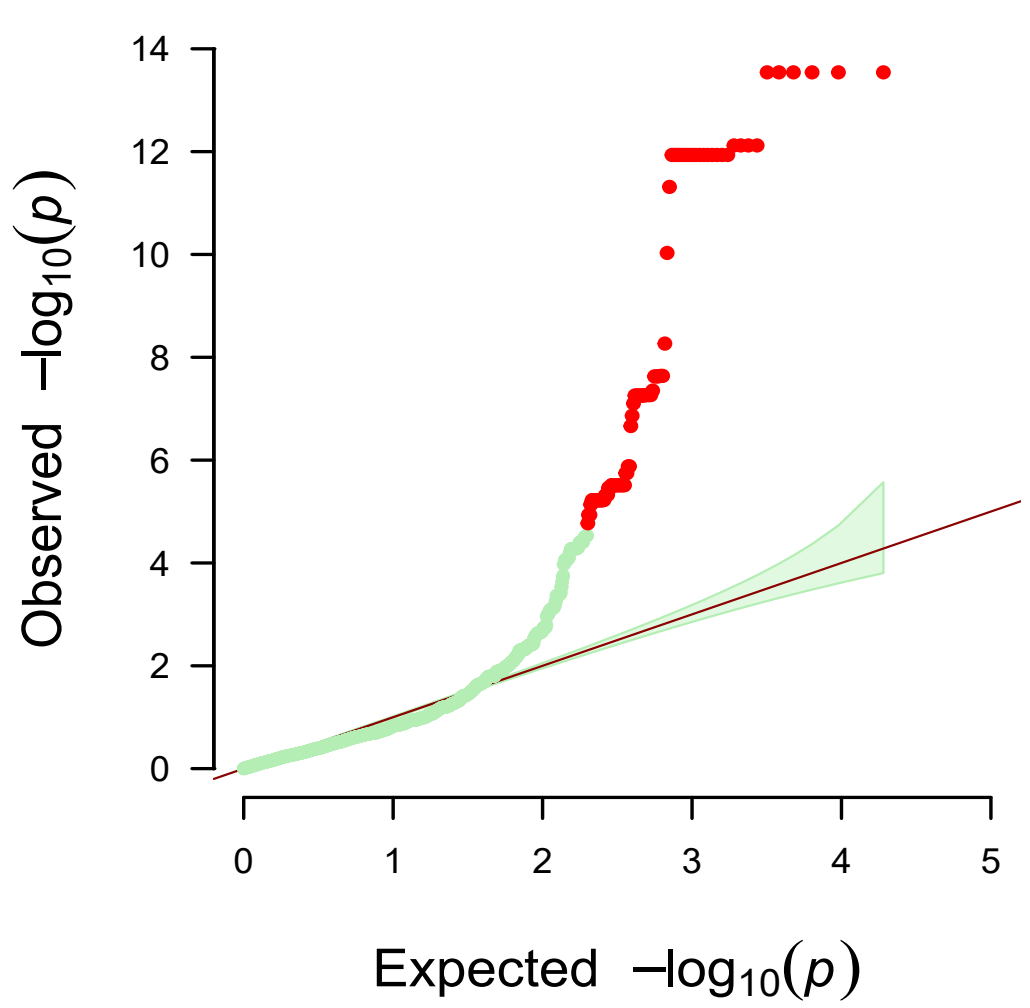
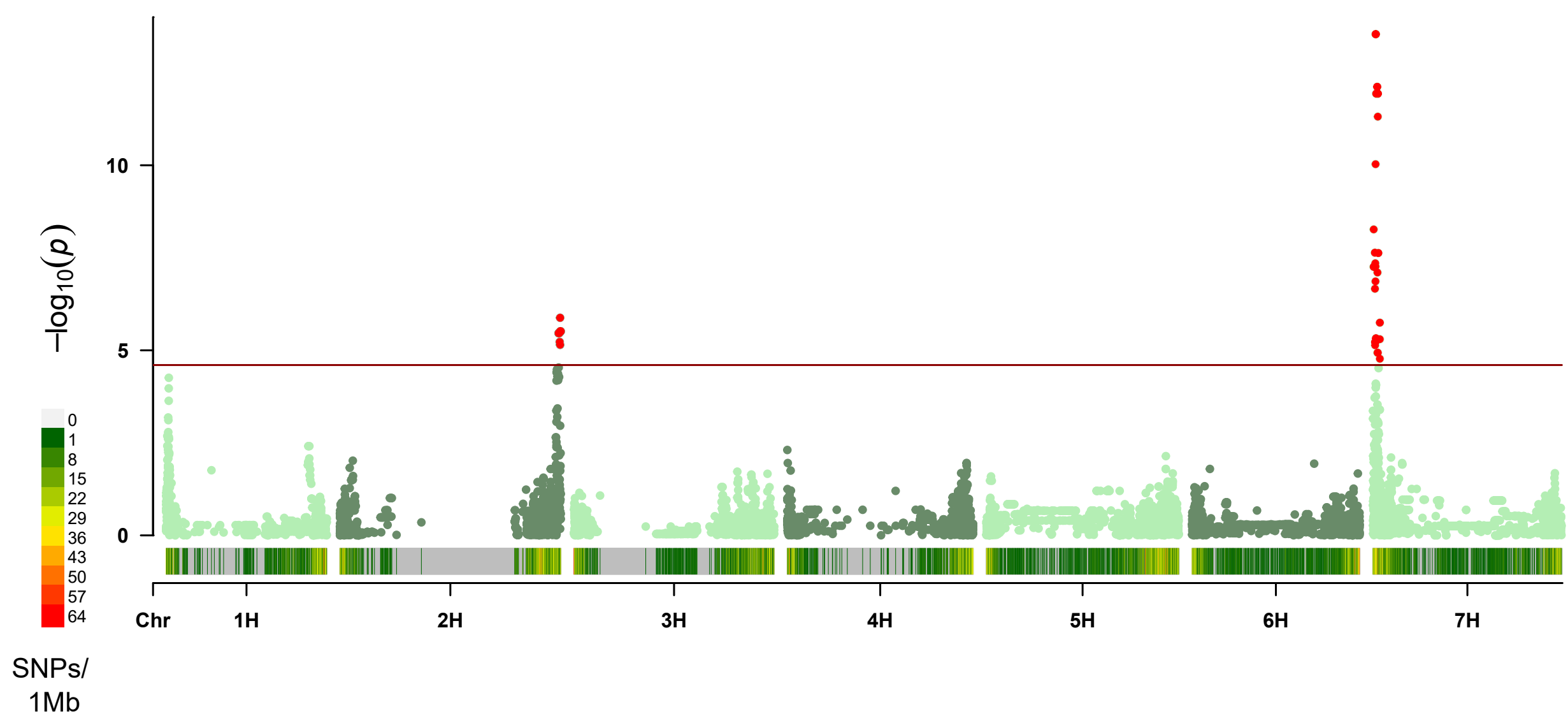
GLM + K



MLM + K + Q

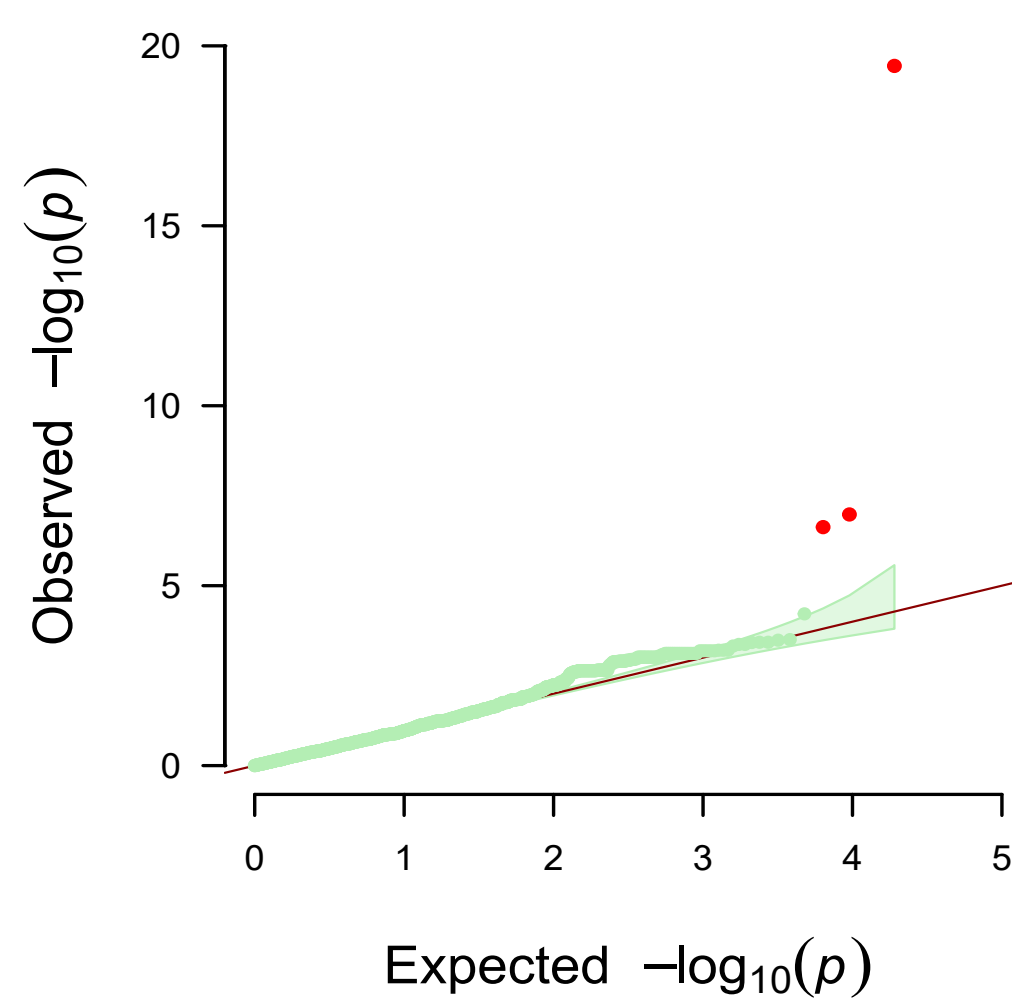
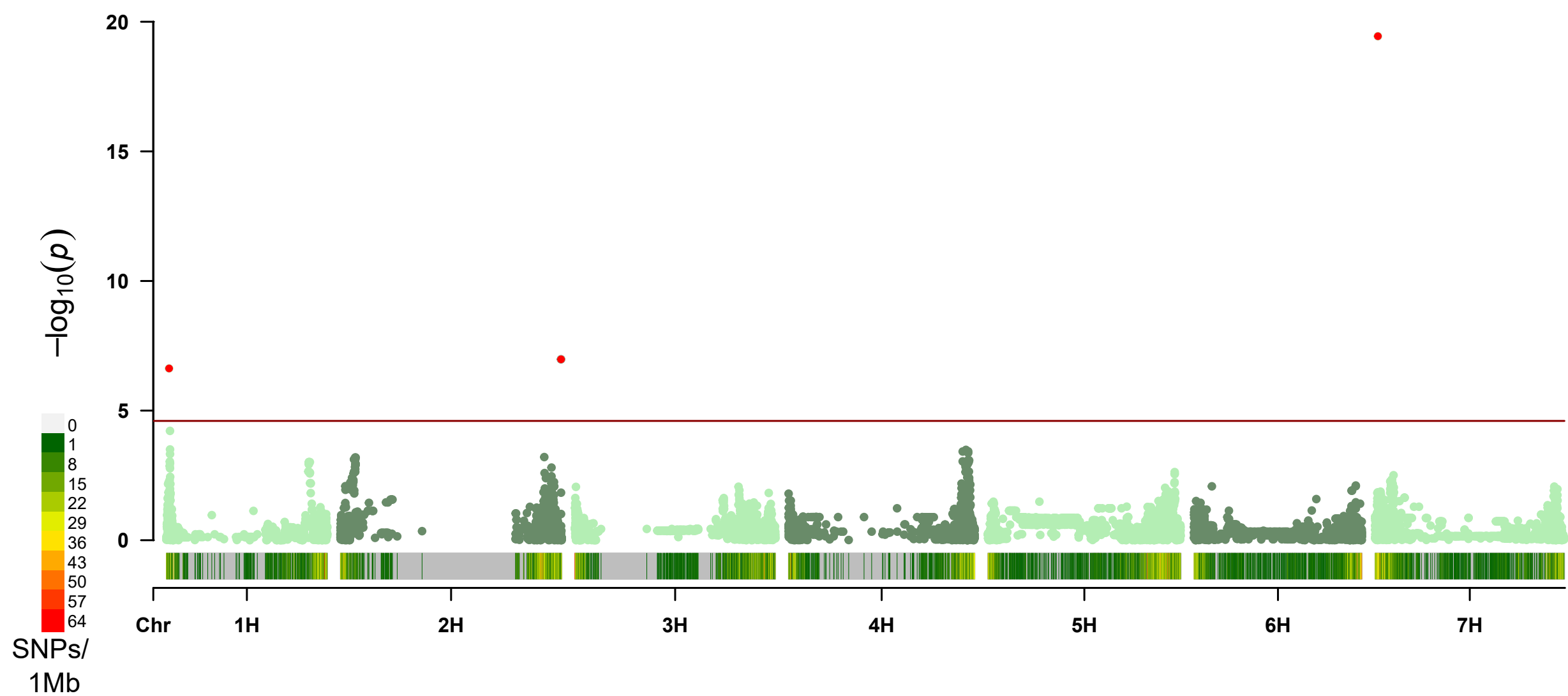


MLM + K

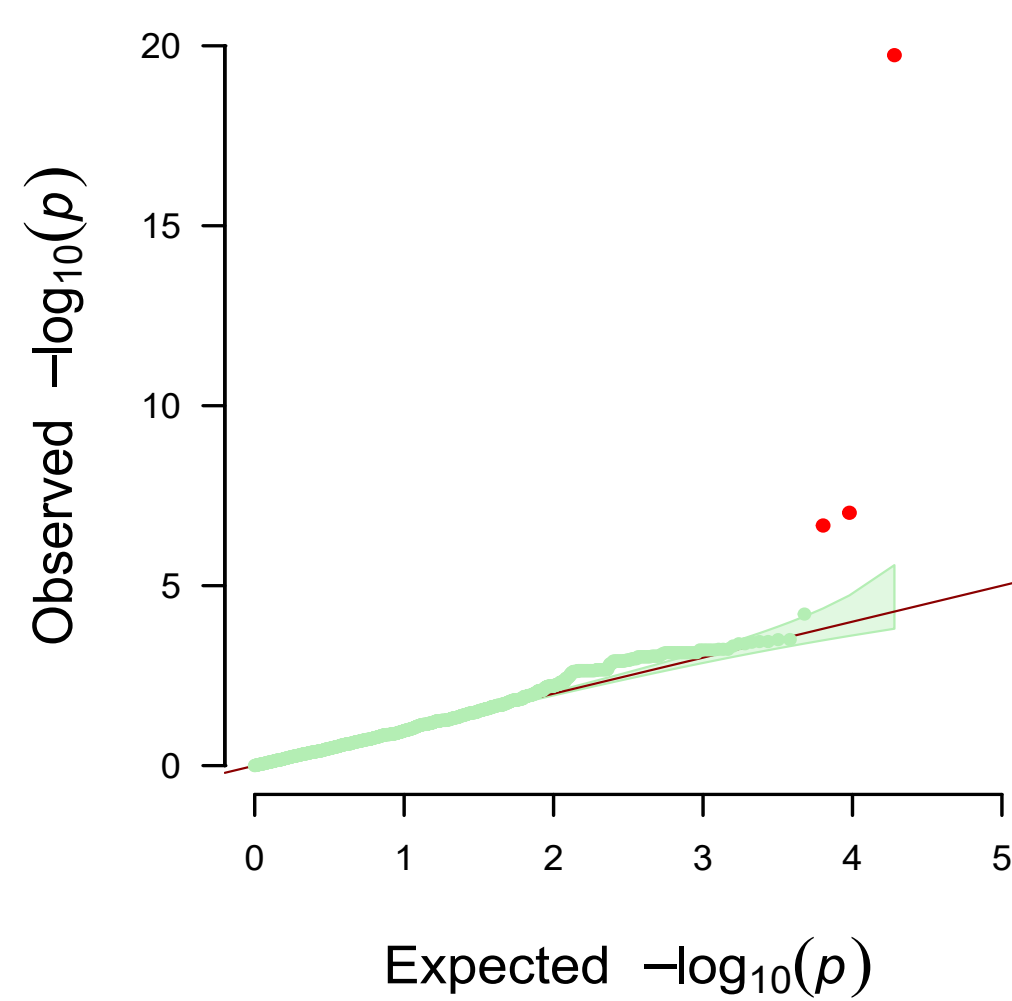
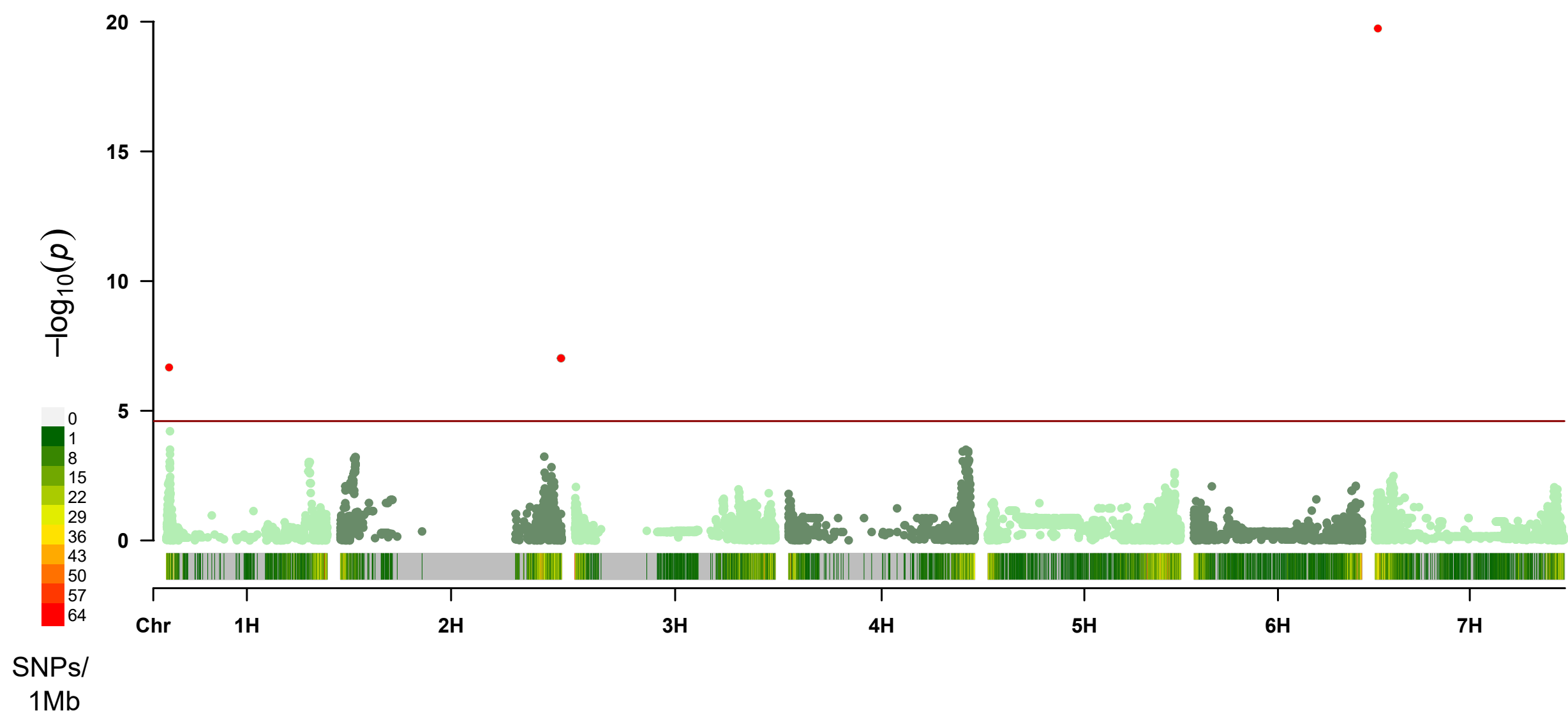


MAGIC 4

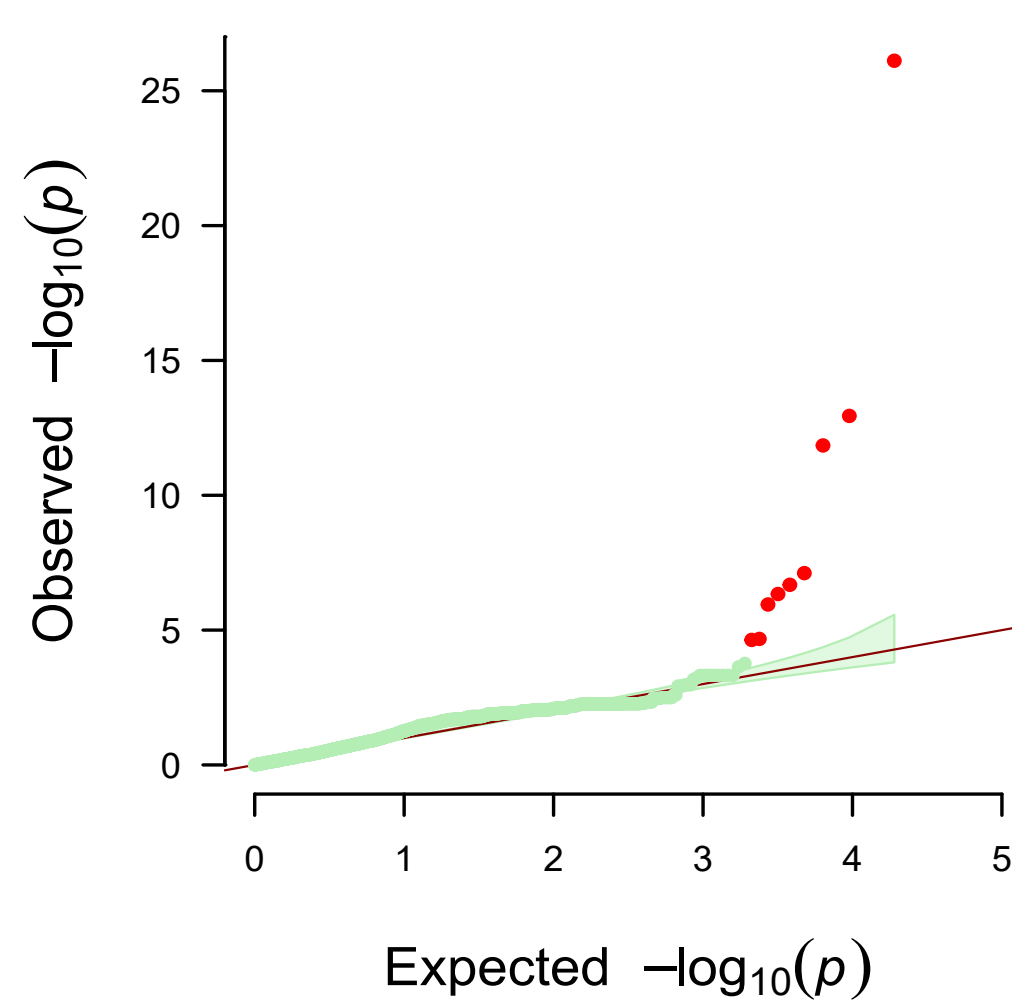
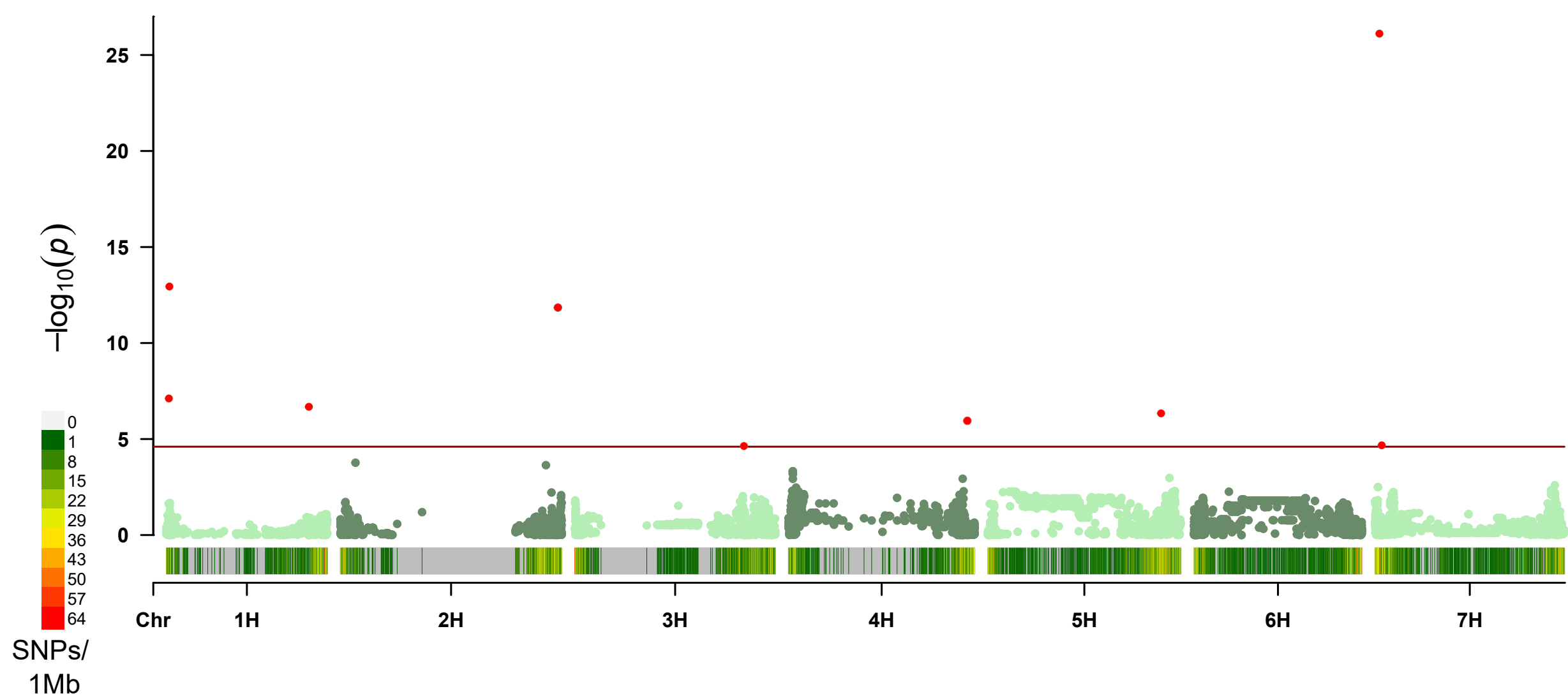
MLMM + K + Q



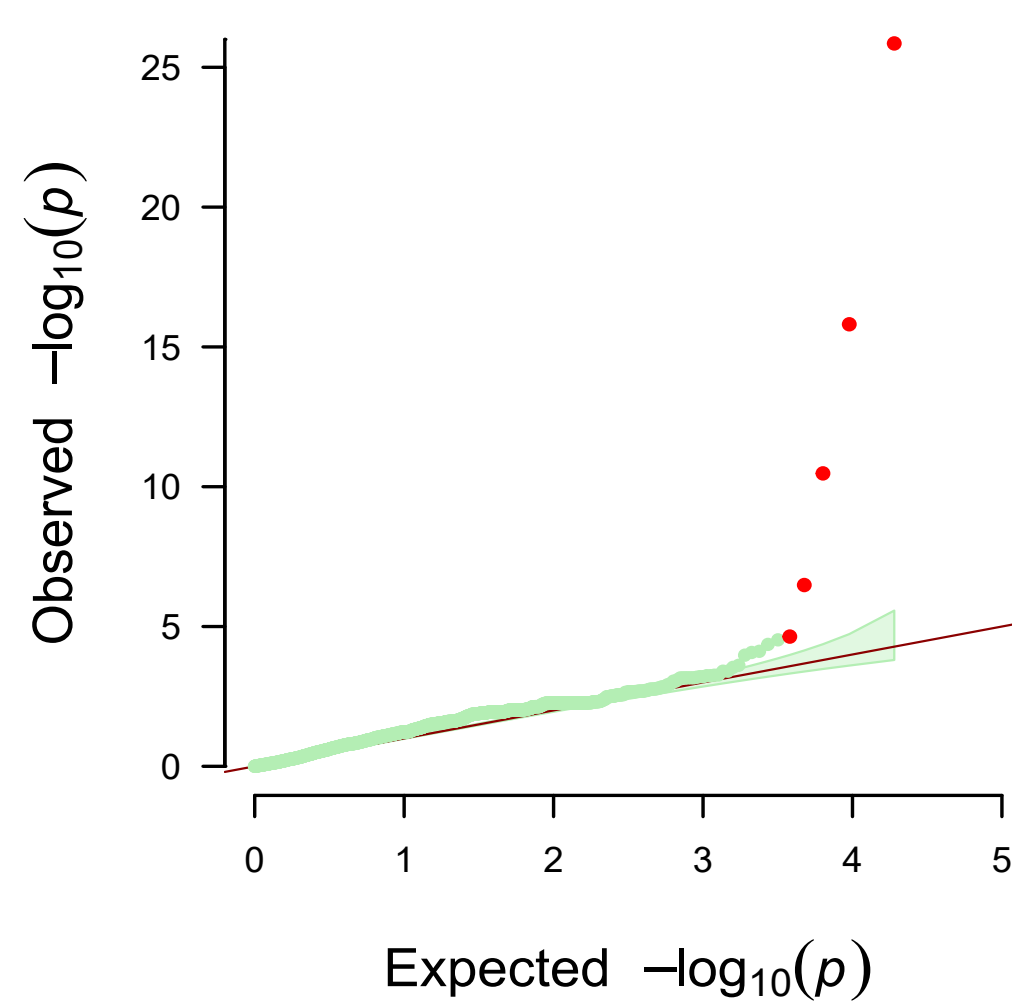
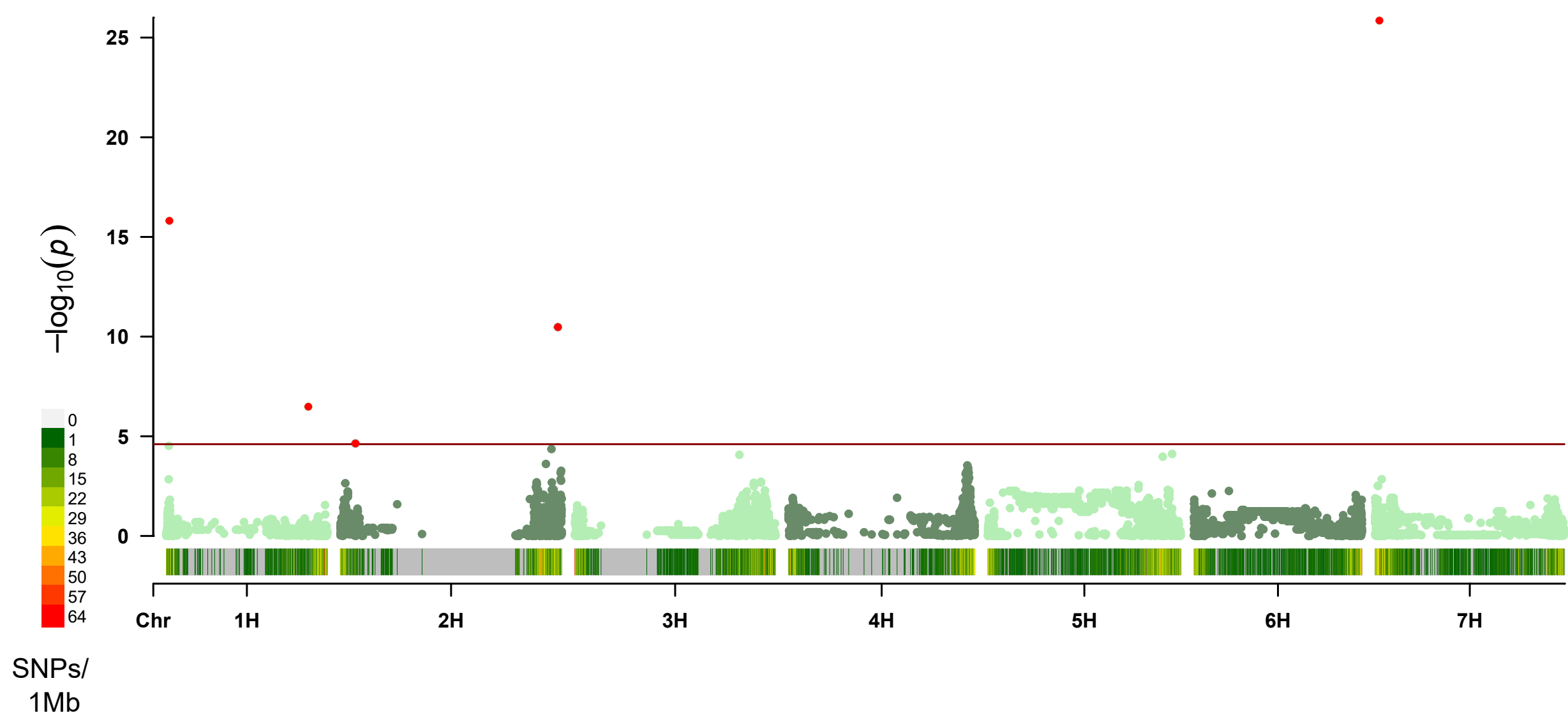
MLMM + K



FarmCPU + K + Q

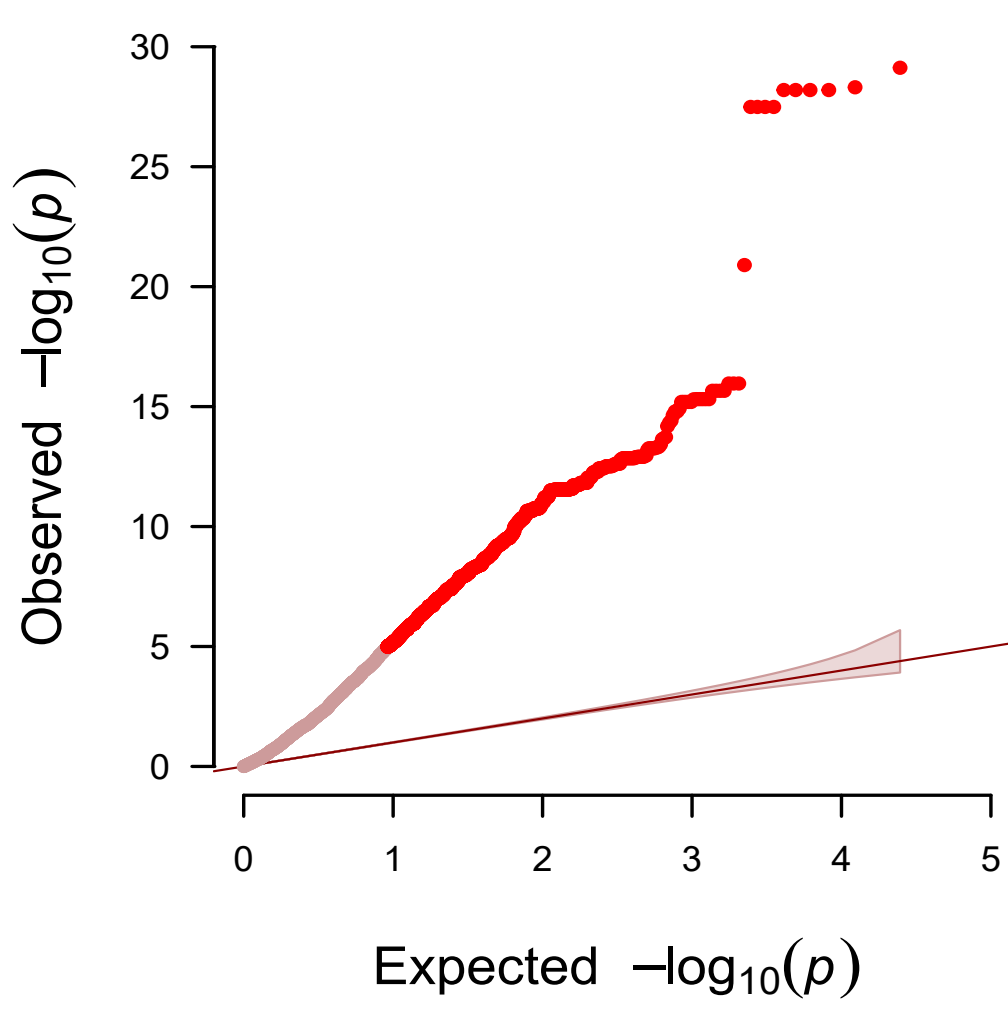
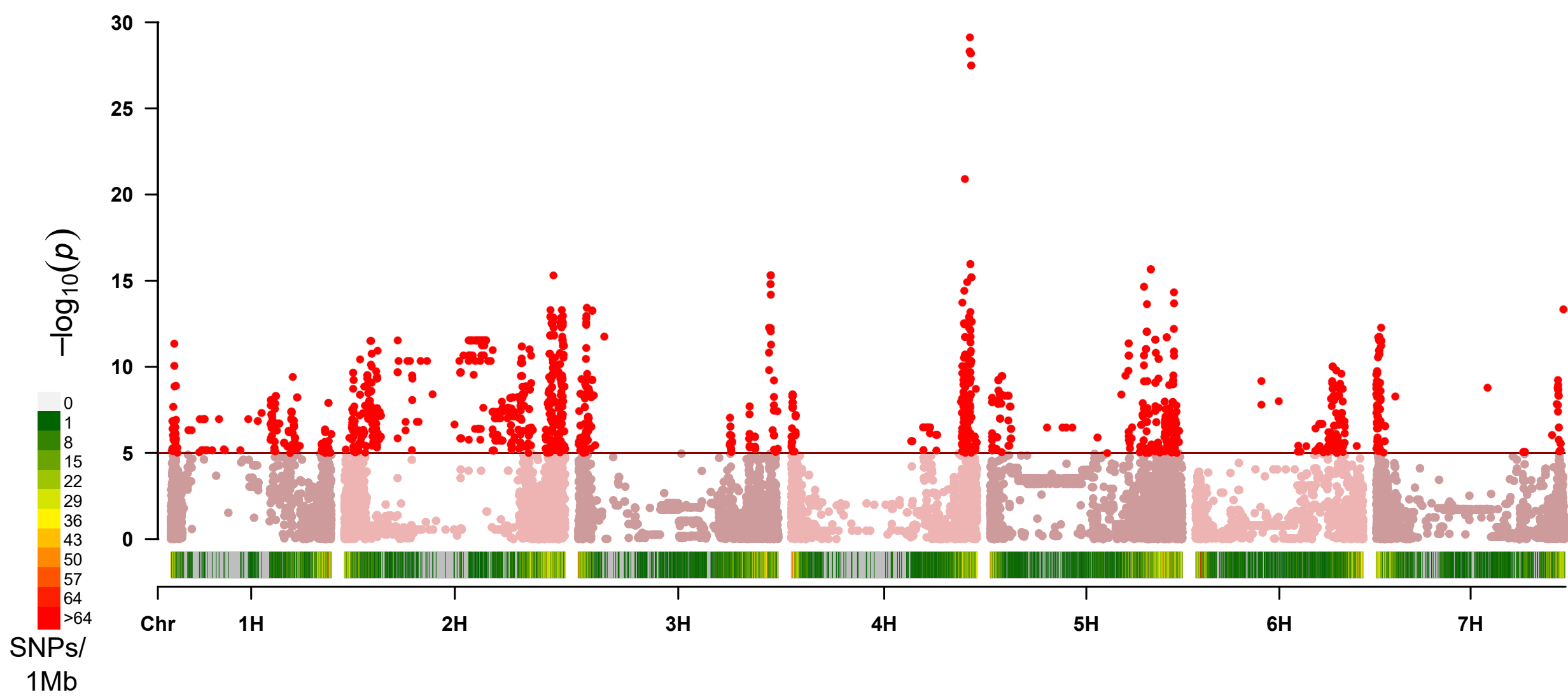


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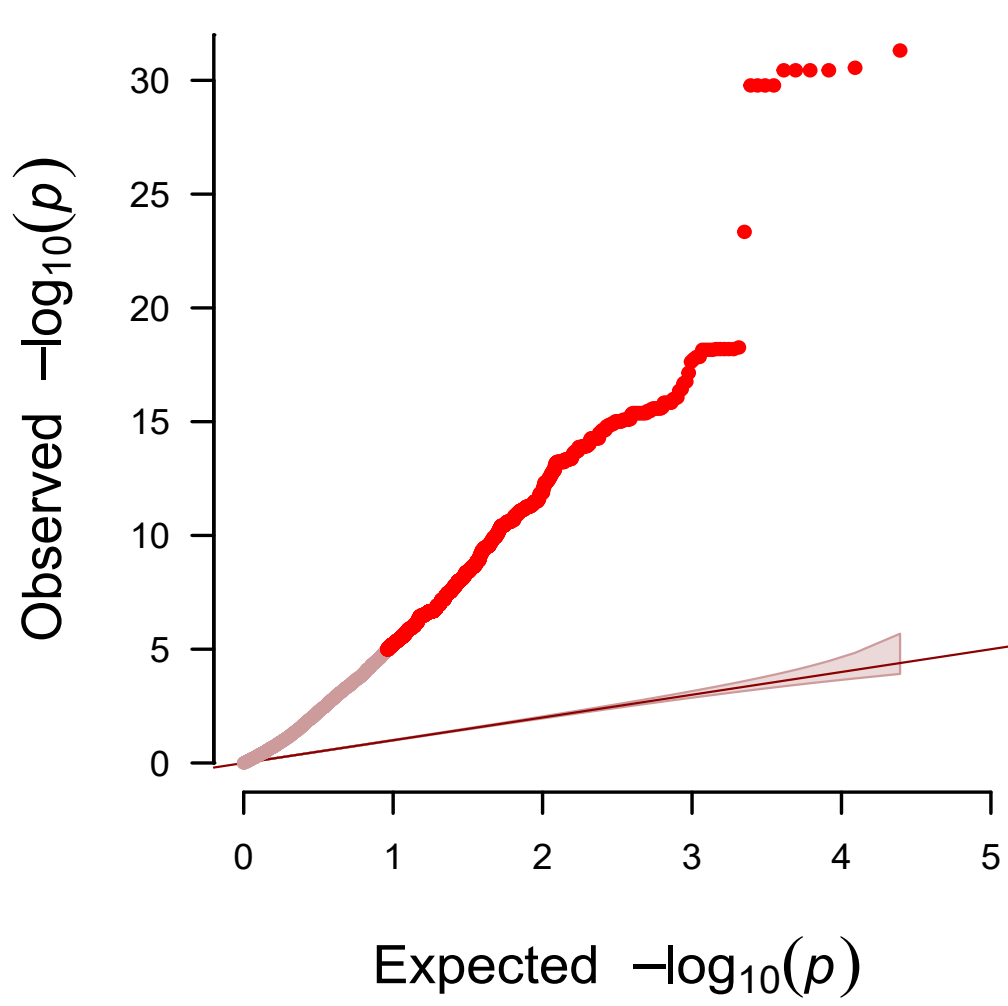
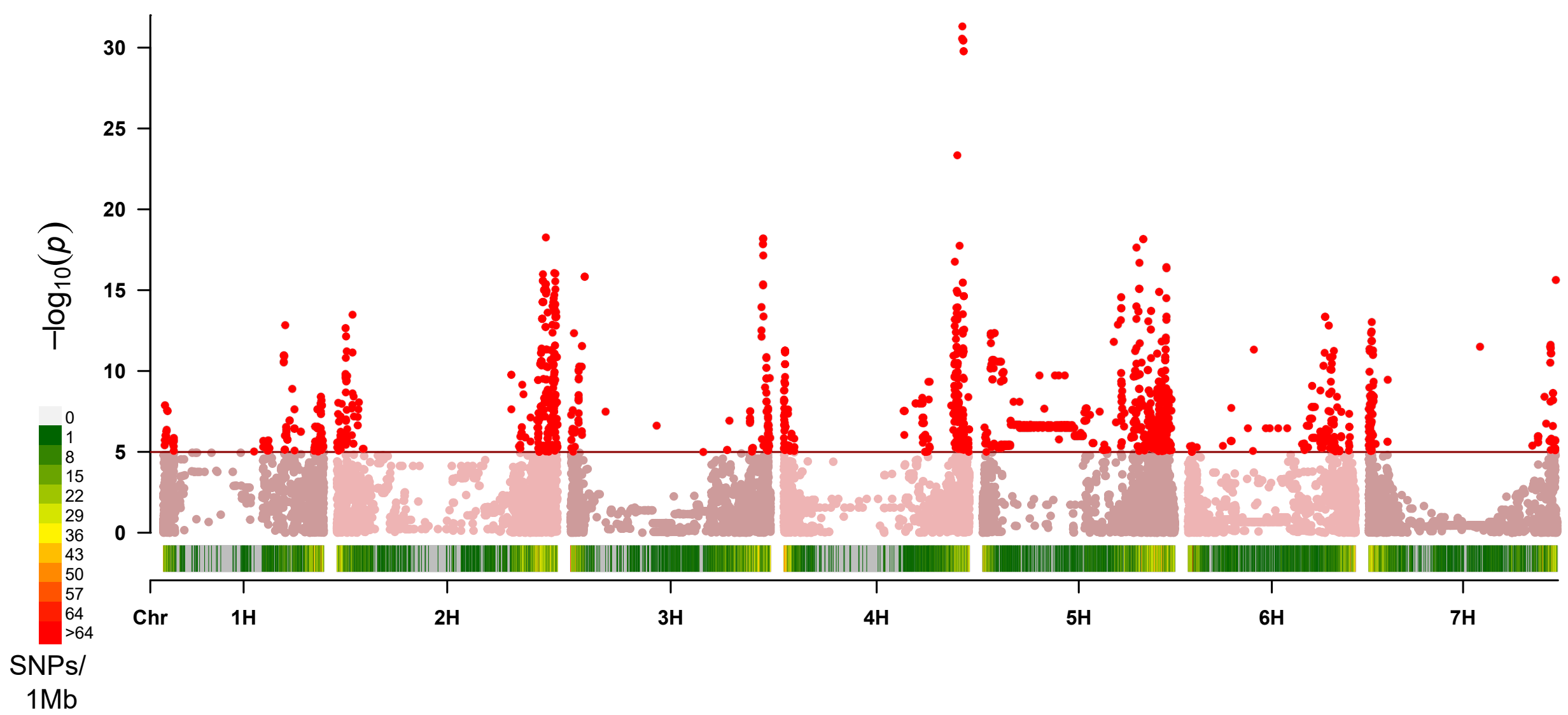


MAGIC 1 to 4

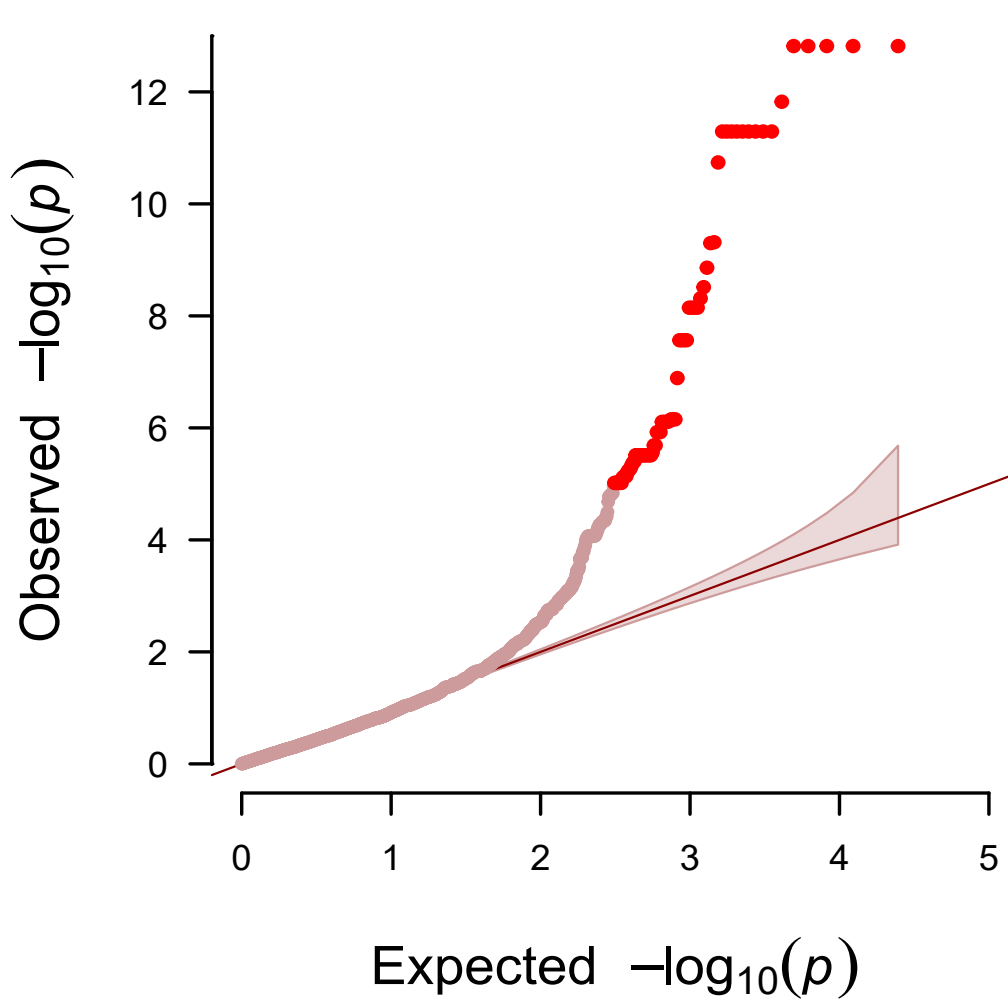
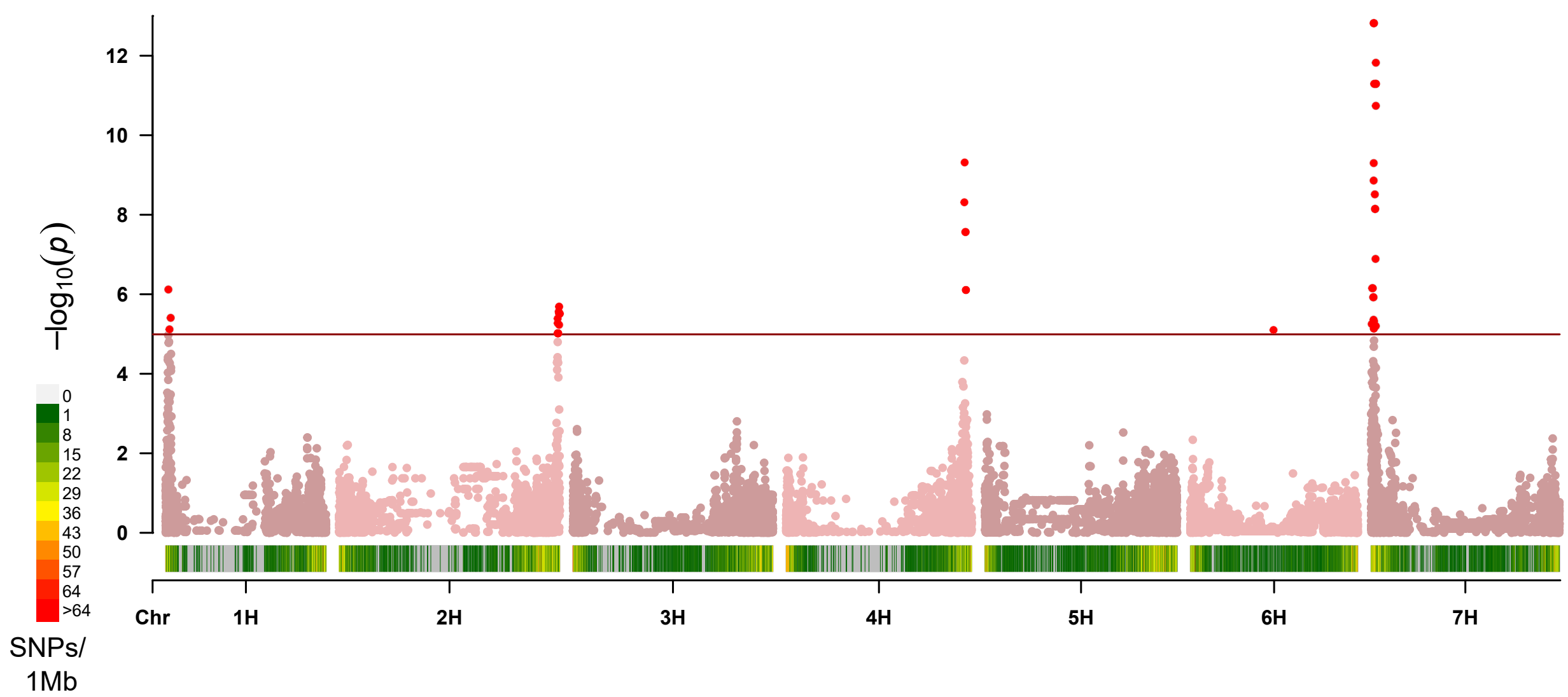
GLM + K + Q



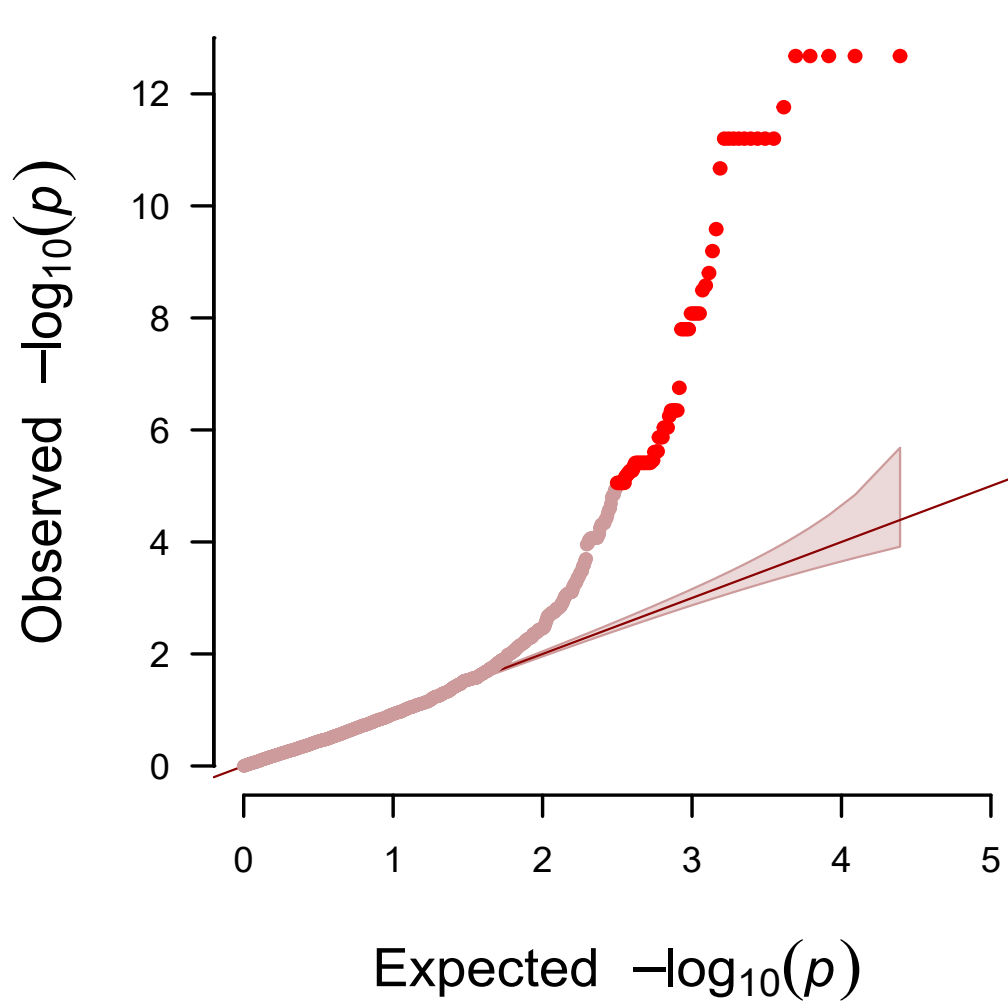
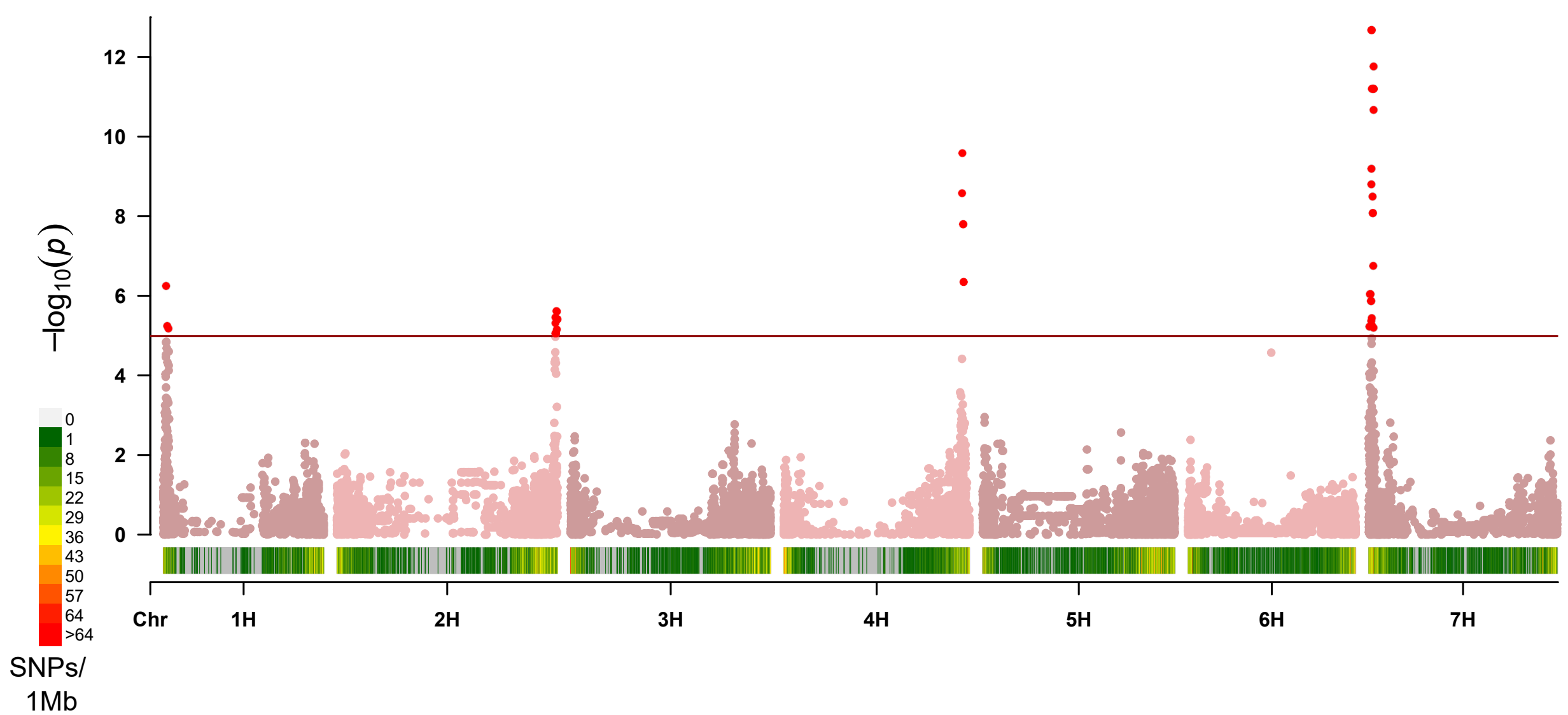
GLM + K



MLM + K + Q

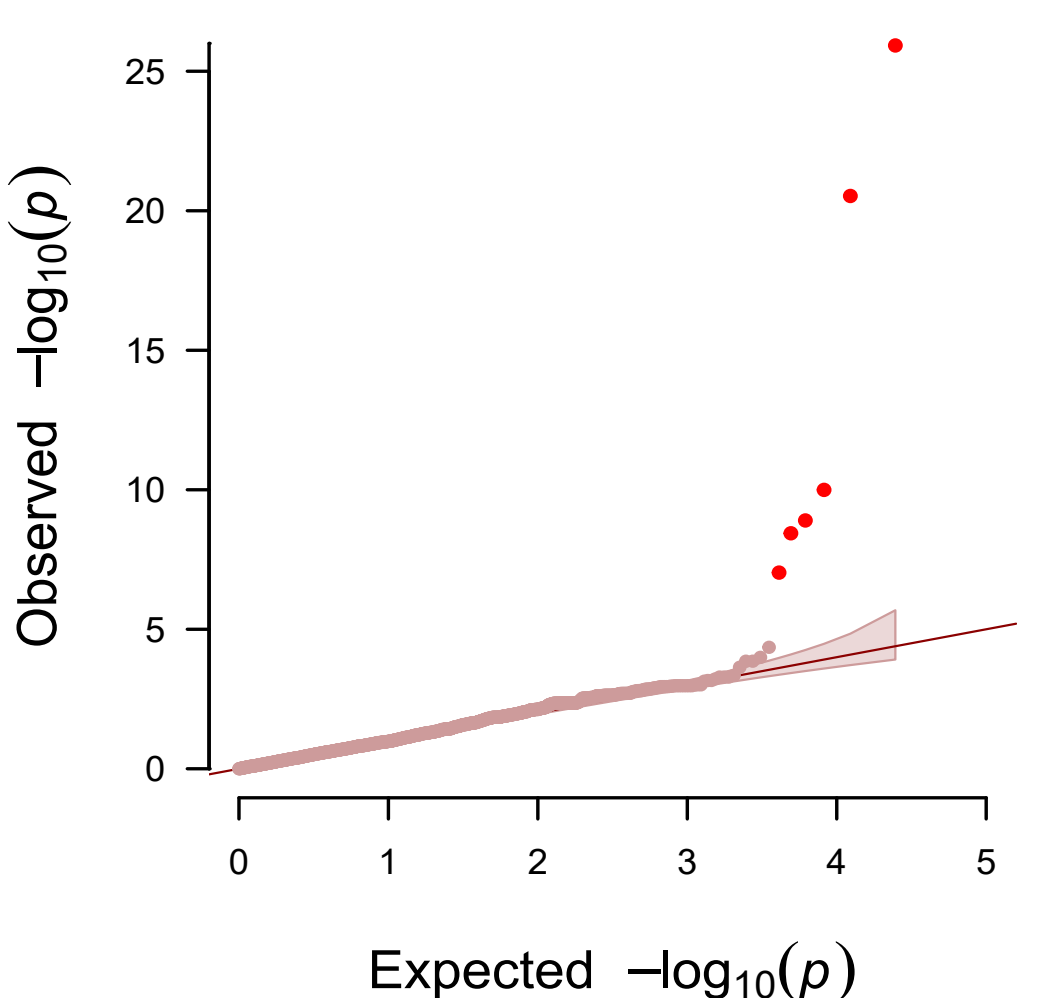
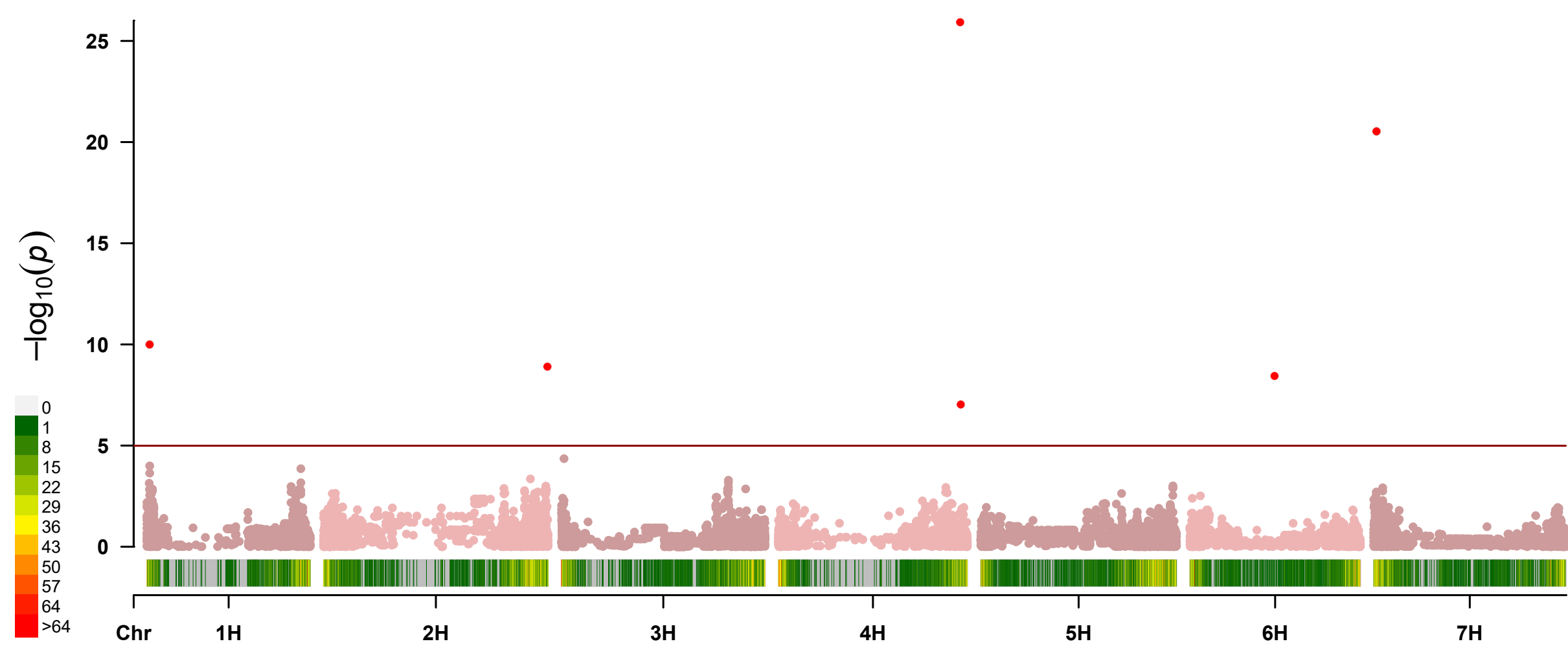


MLM + K

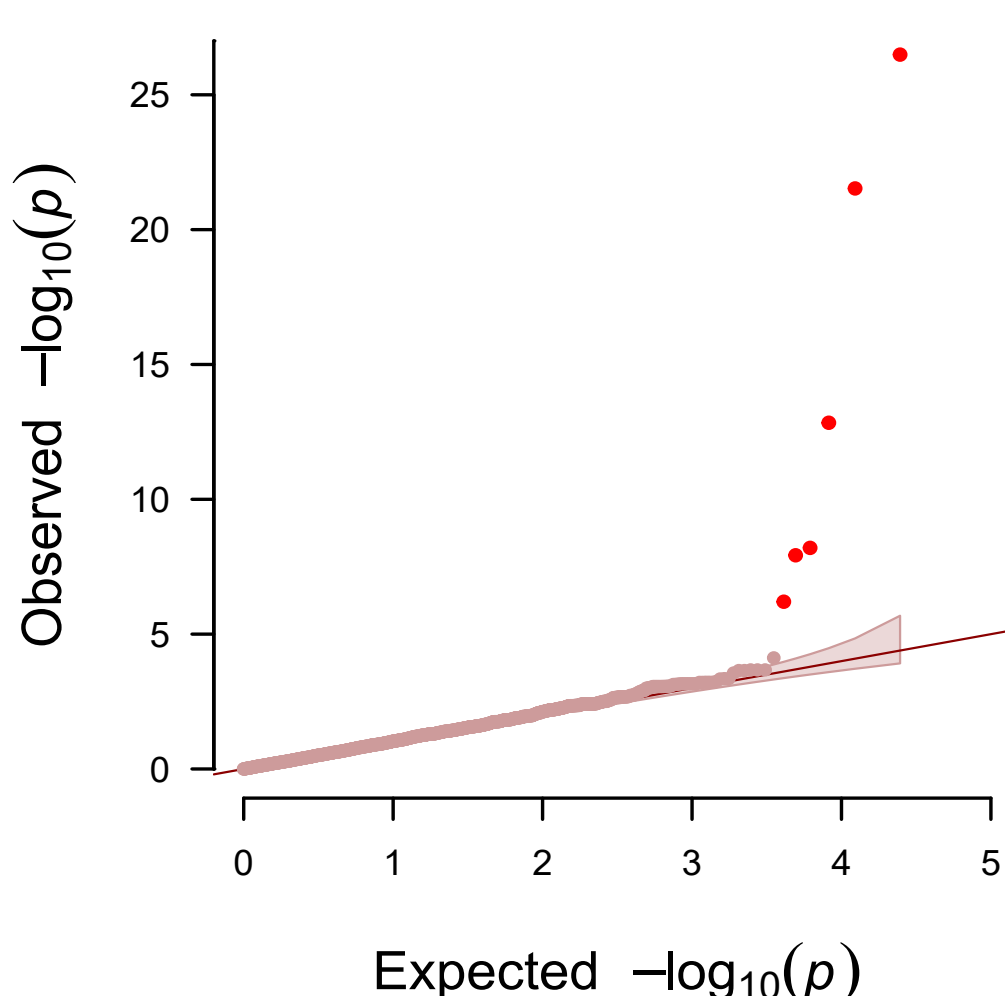
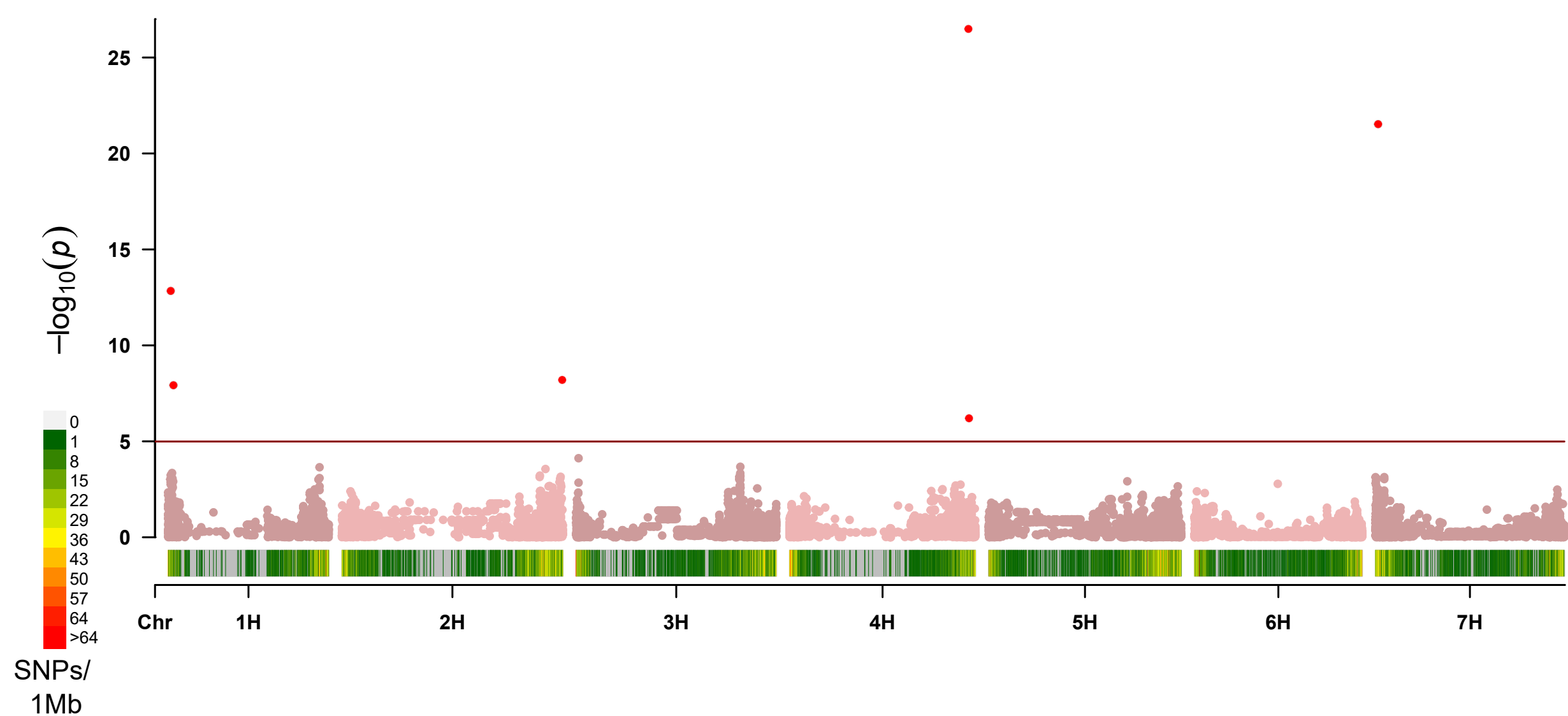


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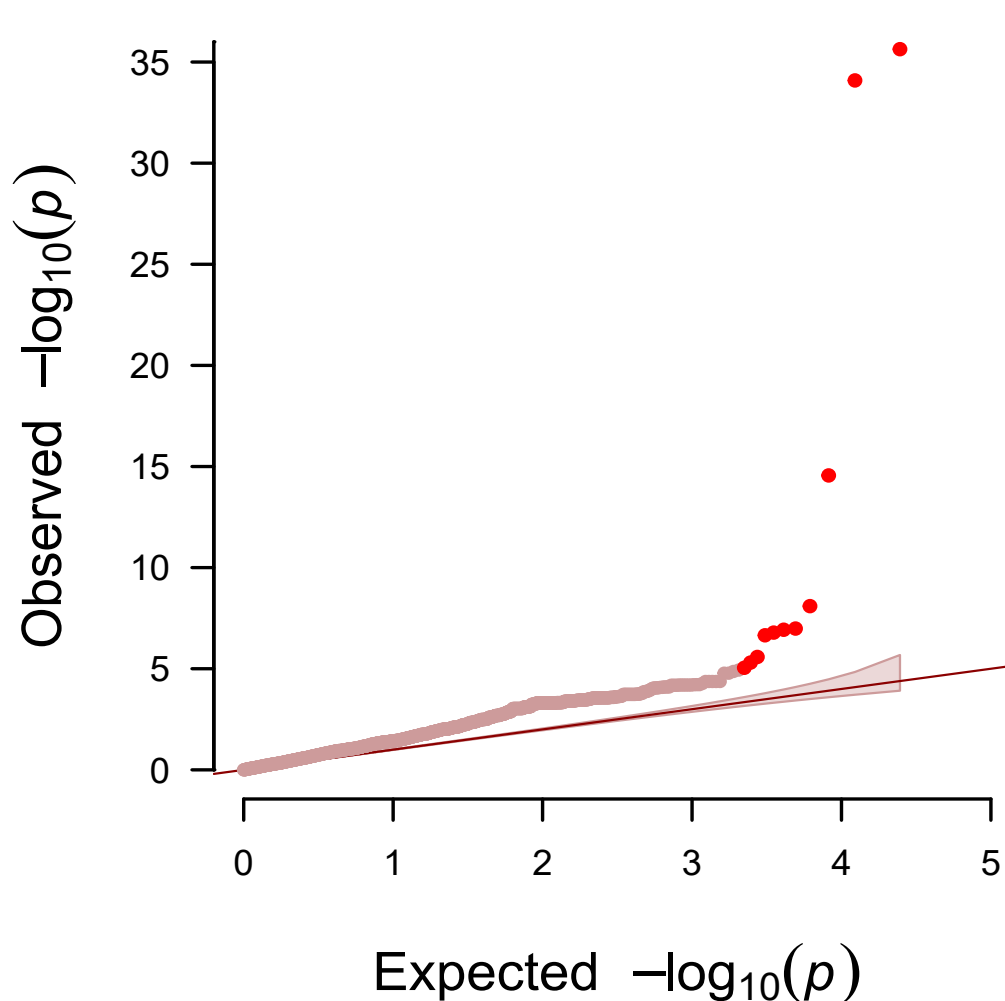
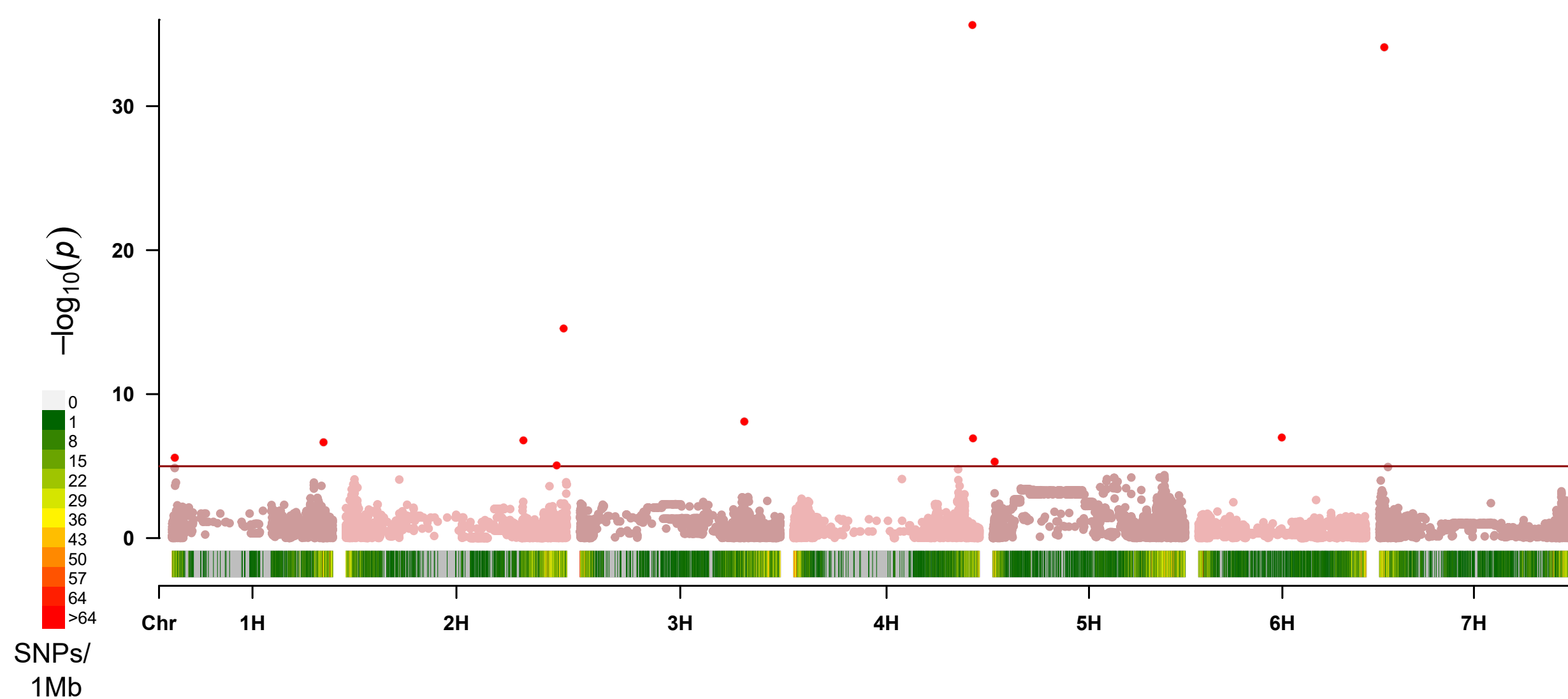
MLMM + K + Q



MLMM + K



FarmCPU + K + Q



FarmCPU + K

