



Paragon x Watkins Landrace JIC 2017 QTL Plots

The bread wheat landrace NAM (nested association mapping) panel is a panel of bi-parental segregating F4 single-seed populations from crosses of spring wheat accession 'Paragon' with diverse wheat germplasm, particularly from the core set of the AE Watkins landrace collection. Population development and KASP genotyping was conducted within the WISP¹ project. Wheat landraces and varieties were collected from markets from 32 countries across the world. 119 of these accessions have been selected as a diverse core set, which is available from Seed-Stor². A changing set of several NAM populations is grown every year in field trials at JIC. Phenotype data is available from Designing Future Wheat (DFW) WP3 Landraces³. QTL analyses were conducted on resulting phenotype data using R/qtl software⁴.

QTL plots on 2017 trials for the following populations are attached:

population name	traits
ParW103	Ht, DTEM
ParW308	AWNS, Ht, DTEM
ParW471	Ht, DTEM
ParW670	Ht, DTEM
ParW700	Ht, AWNS, DTEM
ParW740	Ht, AWNS, DTEM
ParW749	Ht, DTEM

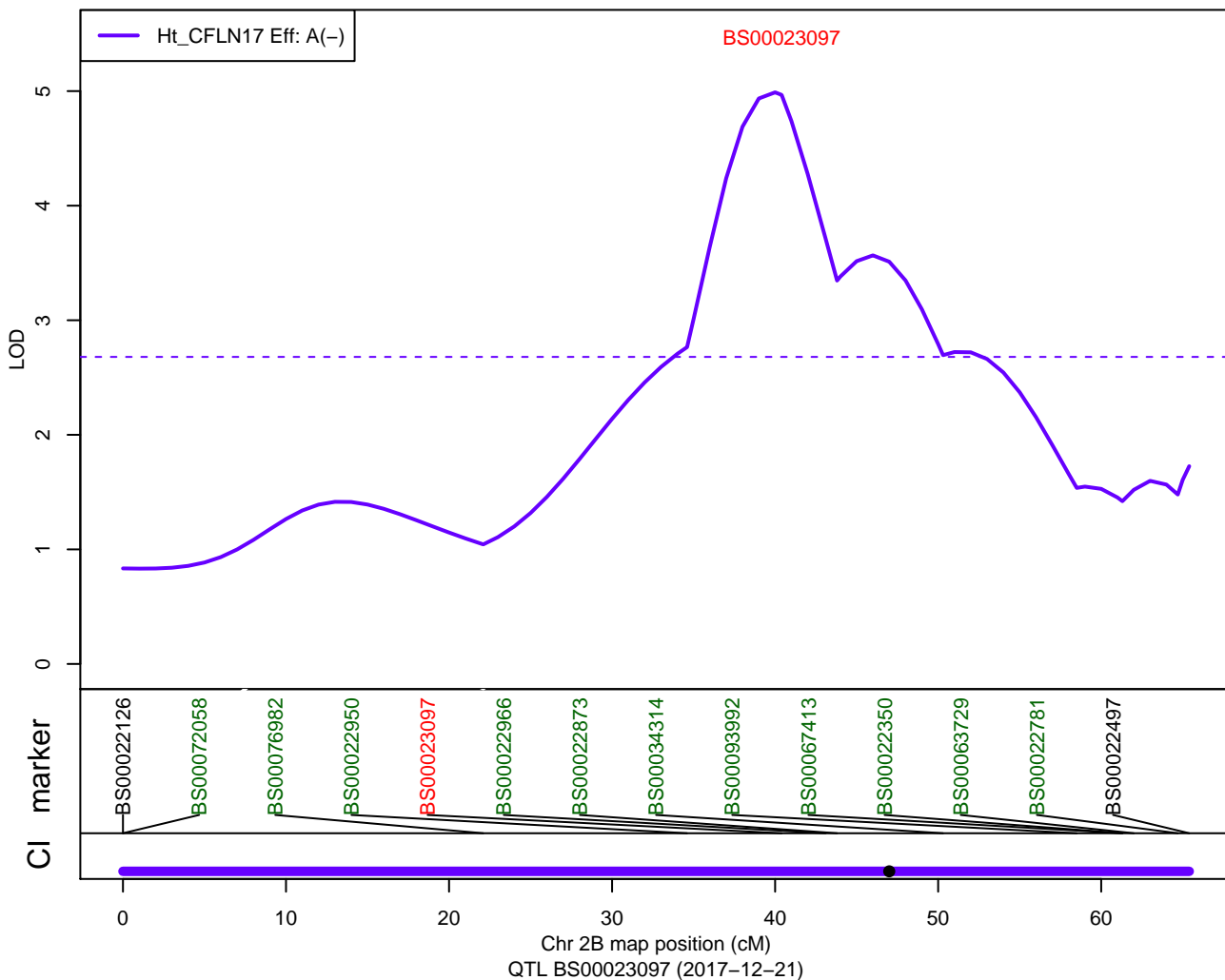
Plot legends: The title names trait, chromosome and population. QTL LOD scores are plotted against the chromosome. Marker names are given at the bottom of the plot. Peak markers are given over the QTL peak. Significance LOD thresholds are indicated as horizontal dotted lines. Abbreviations: AWNS: presence of awns, DTEM: days to ear emergence after May 1st, Ht: plant height [cm],

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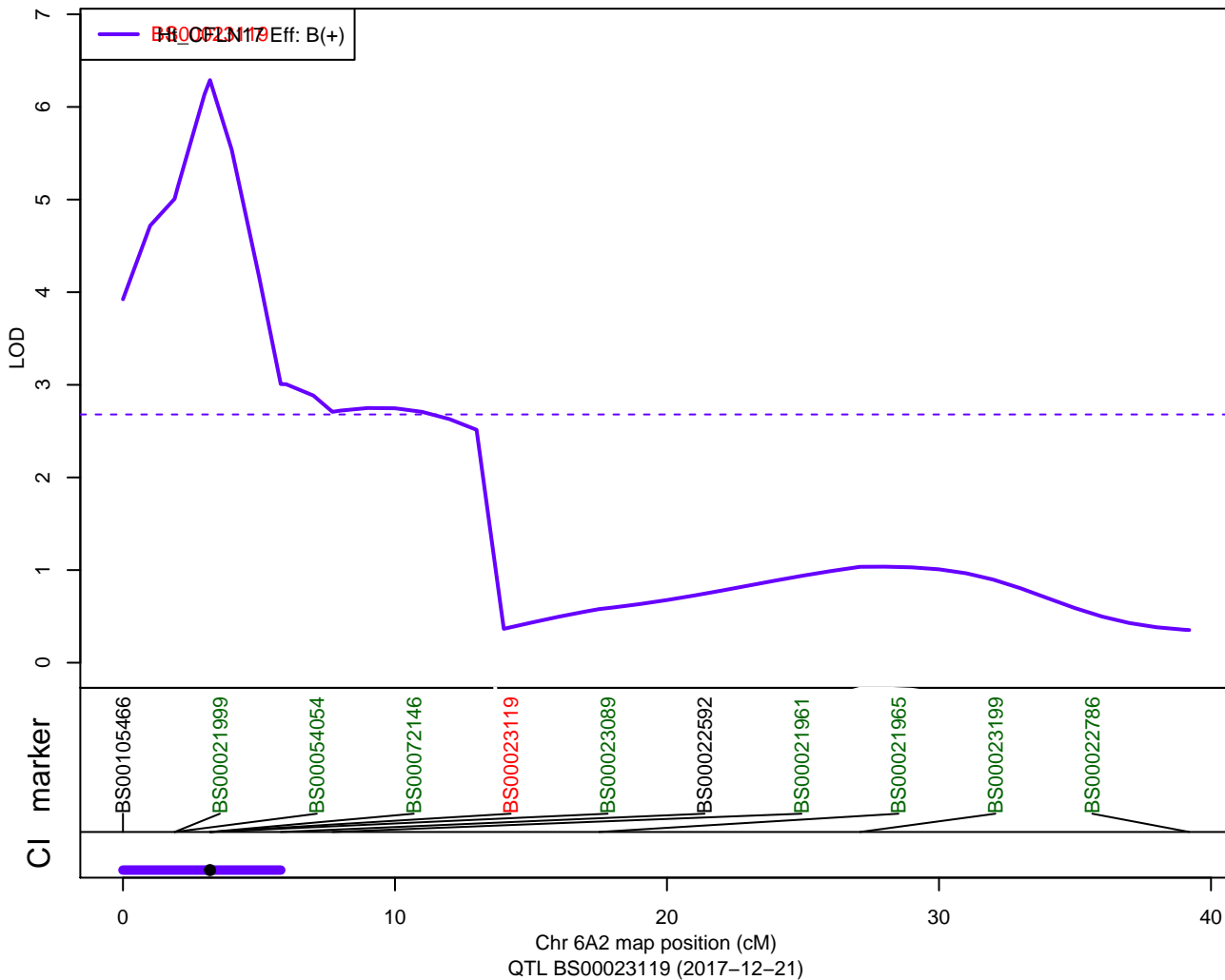
22/01/2018 Luzie Wingen (luzie.wingen@jic.ac.uk)

¹ www.wheatisp.org ² <https://seedstor.ac.uk> ³ <http://wisplandrangepillar.jic.ac.uk/> ⁴ www.rqtl.org

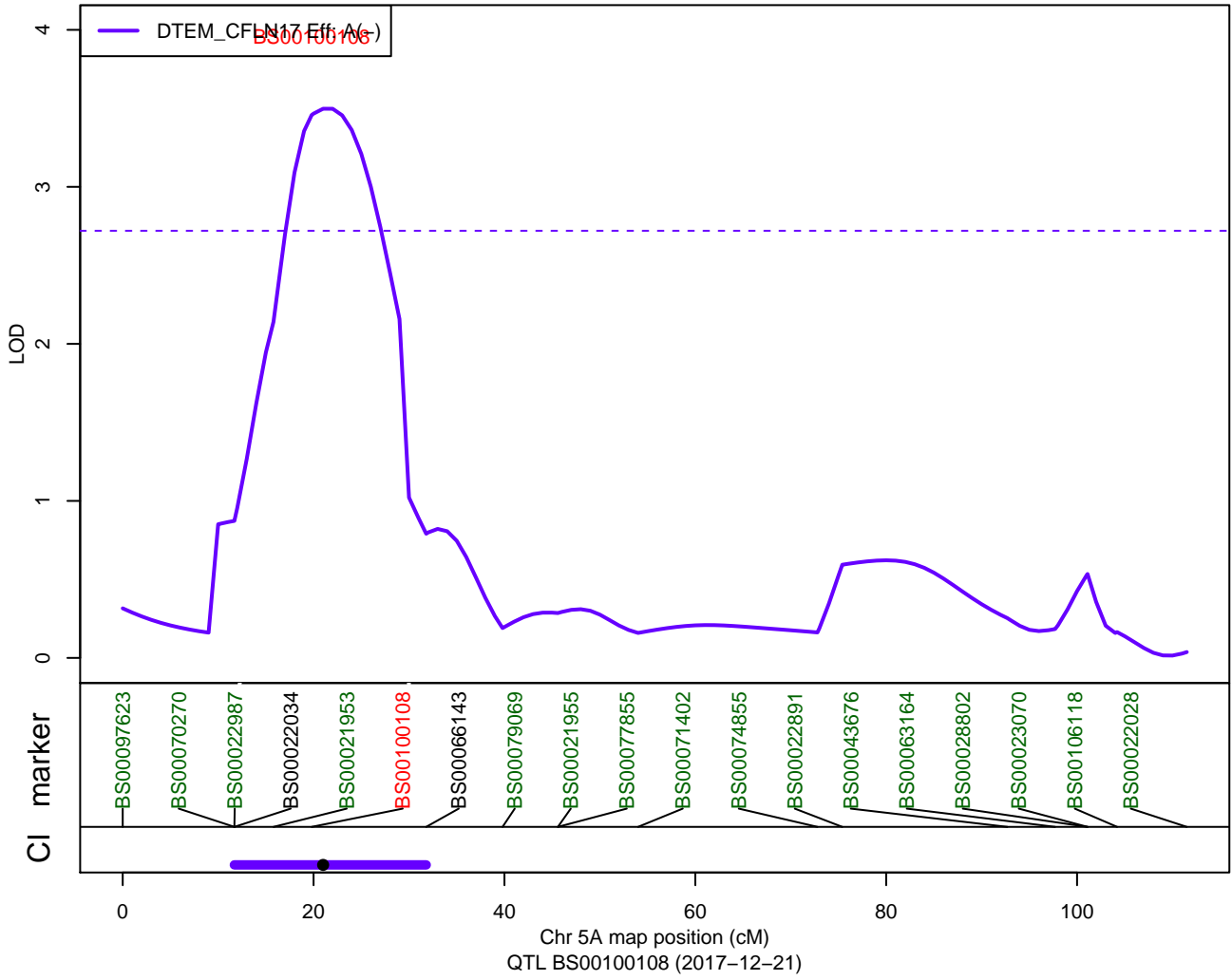
QTLs: ParW103 – Ht – 2B



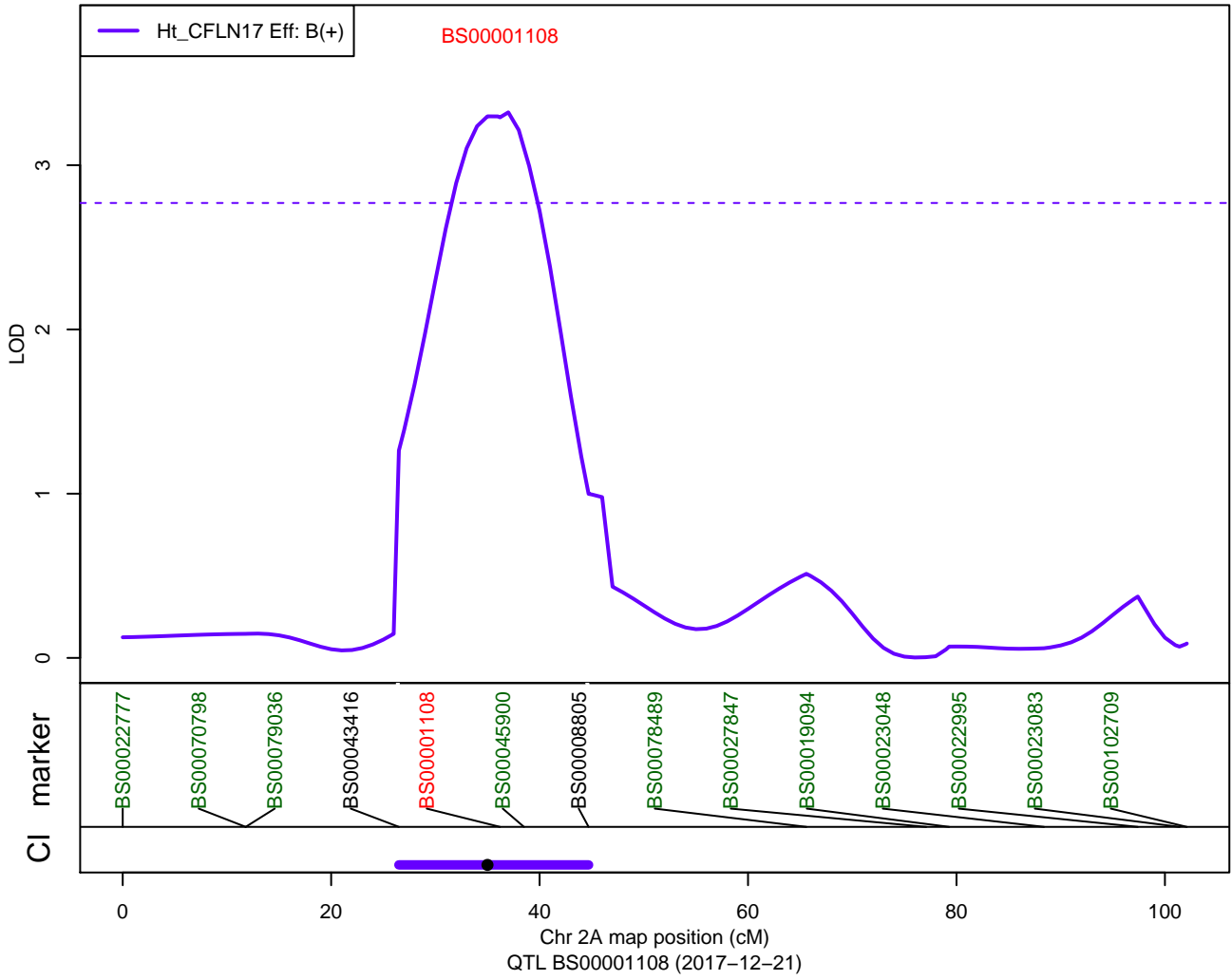
QTLs: ParW103 – Ht – 6A2



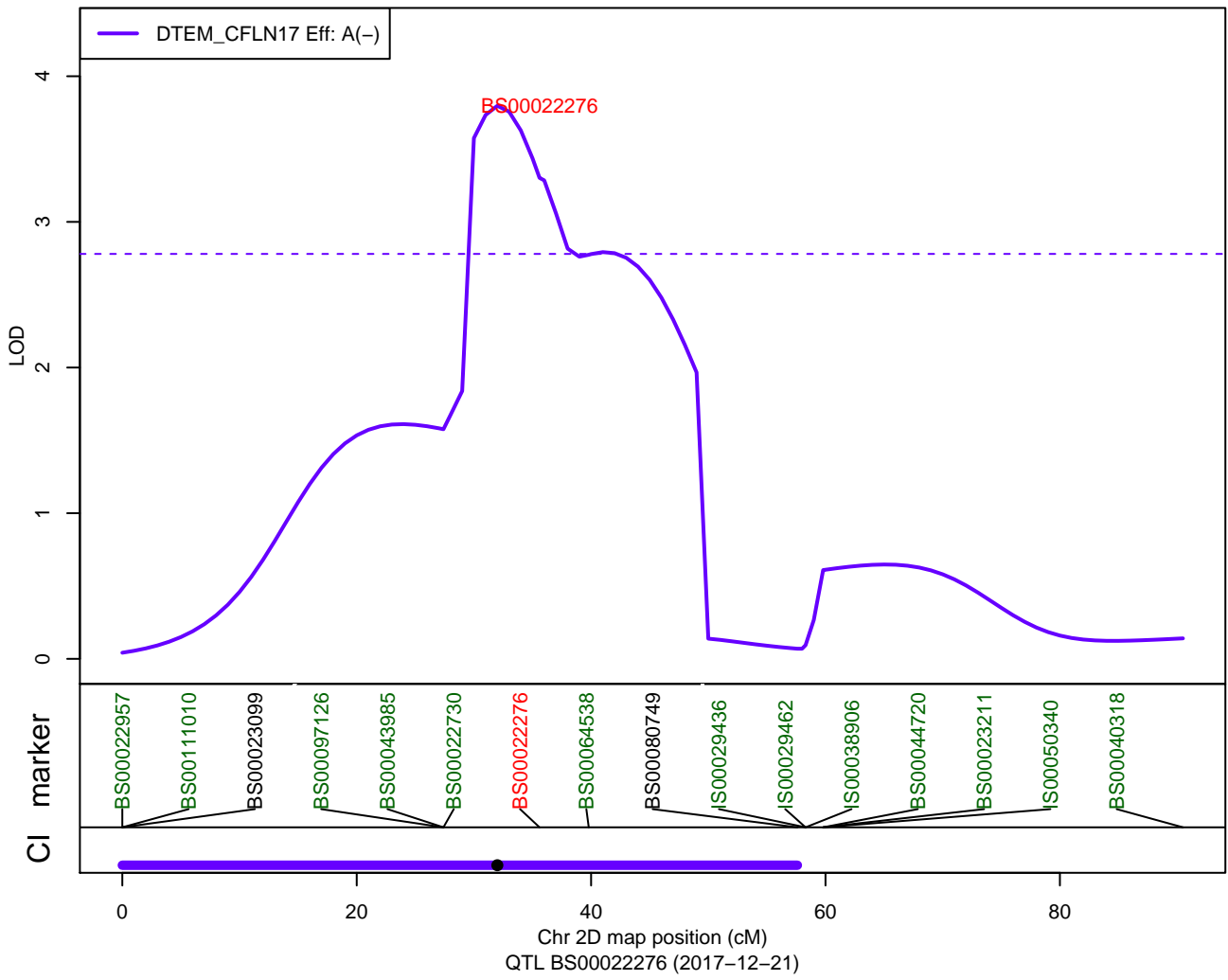
QTLs: ParW103 - DTEM - 5A



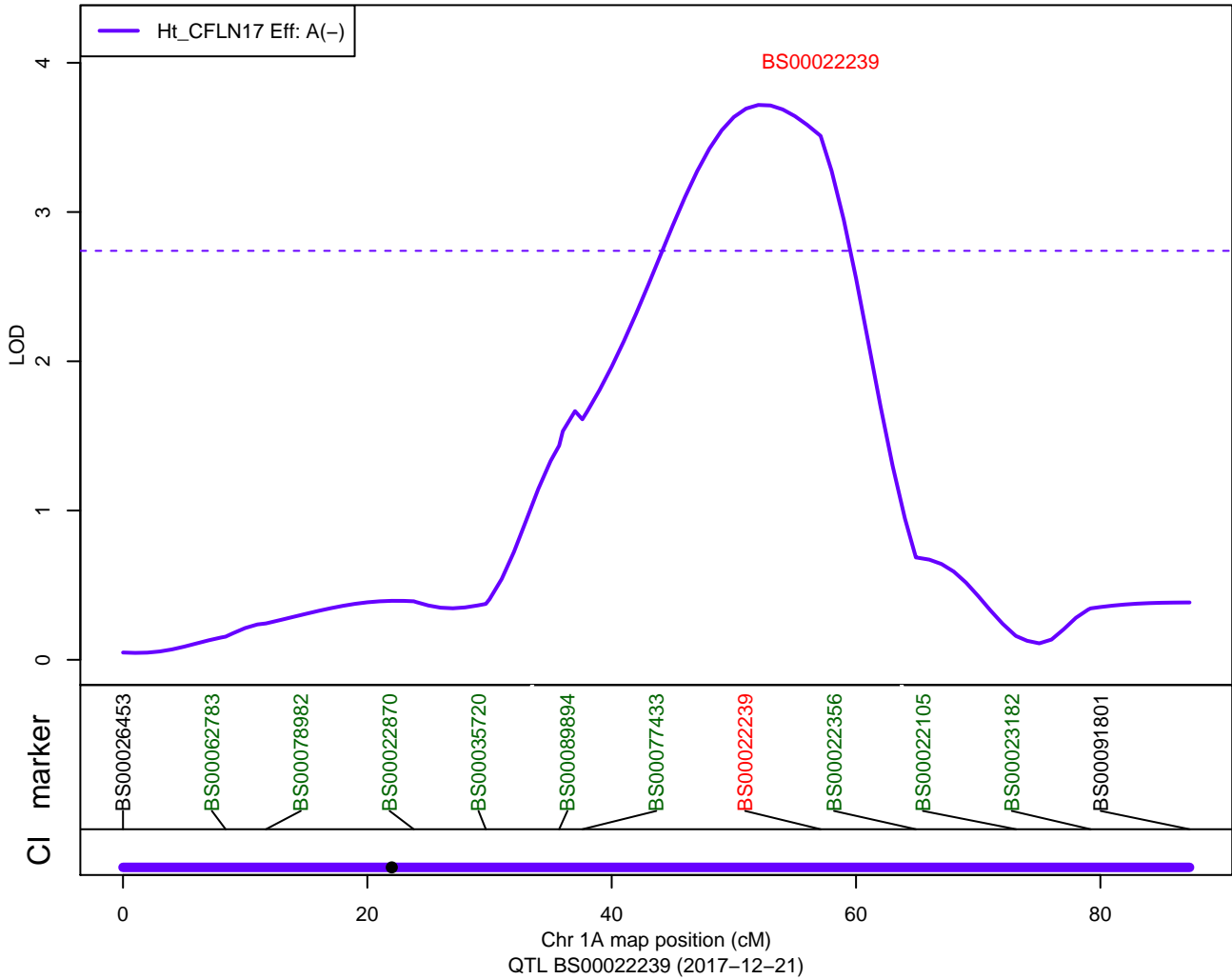
QTLs: ParW308 – Ht – 2A



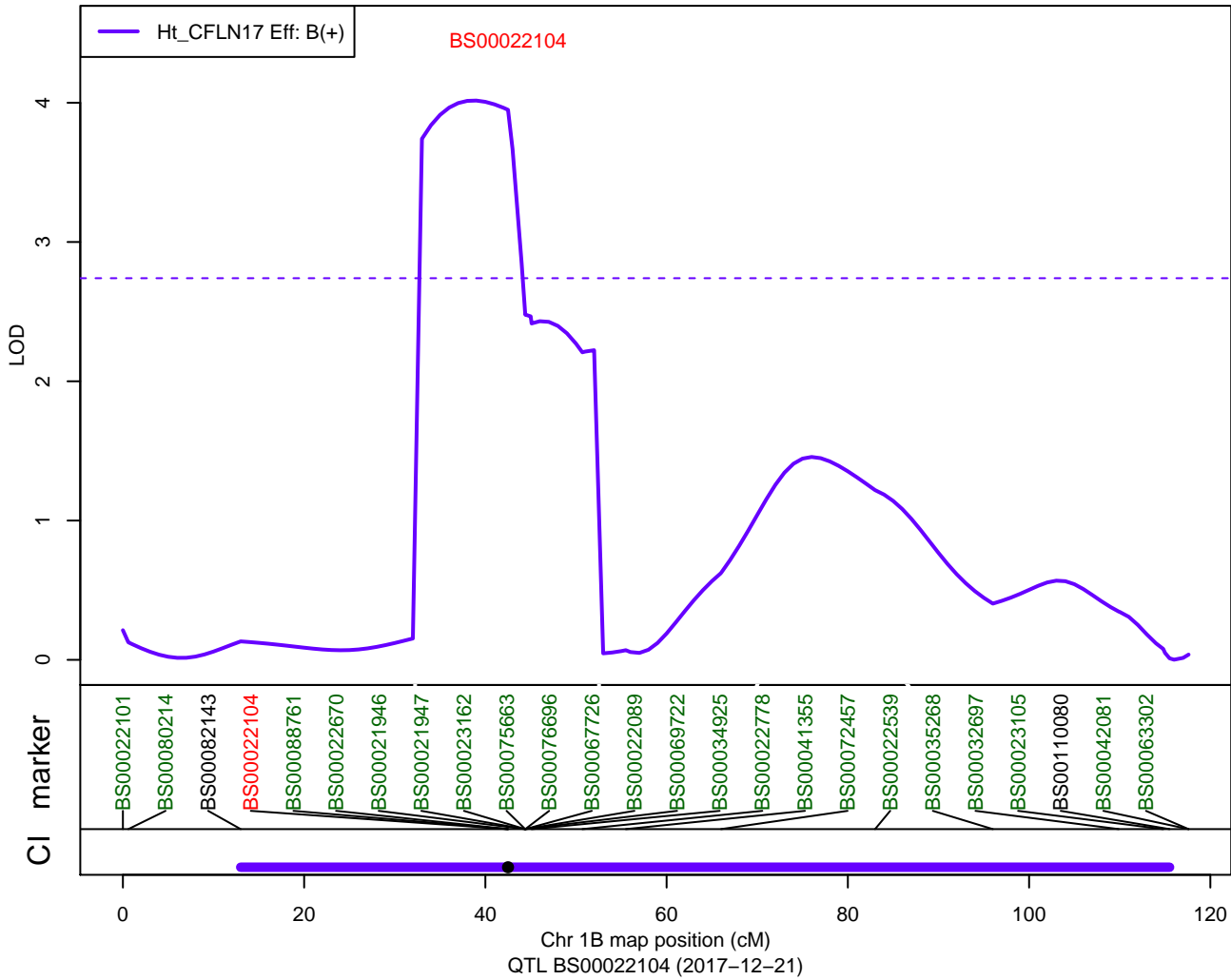
QTLs: ParW308 – DTEM – 2D



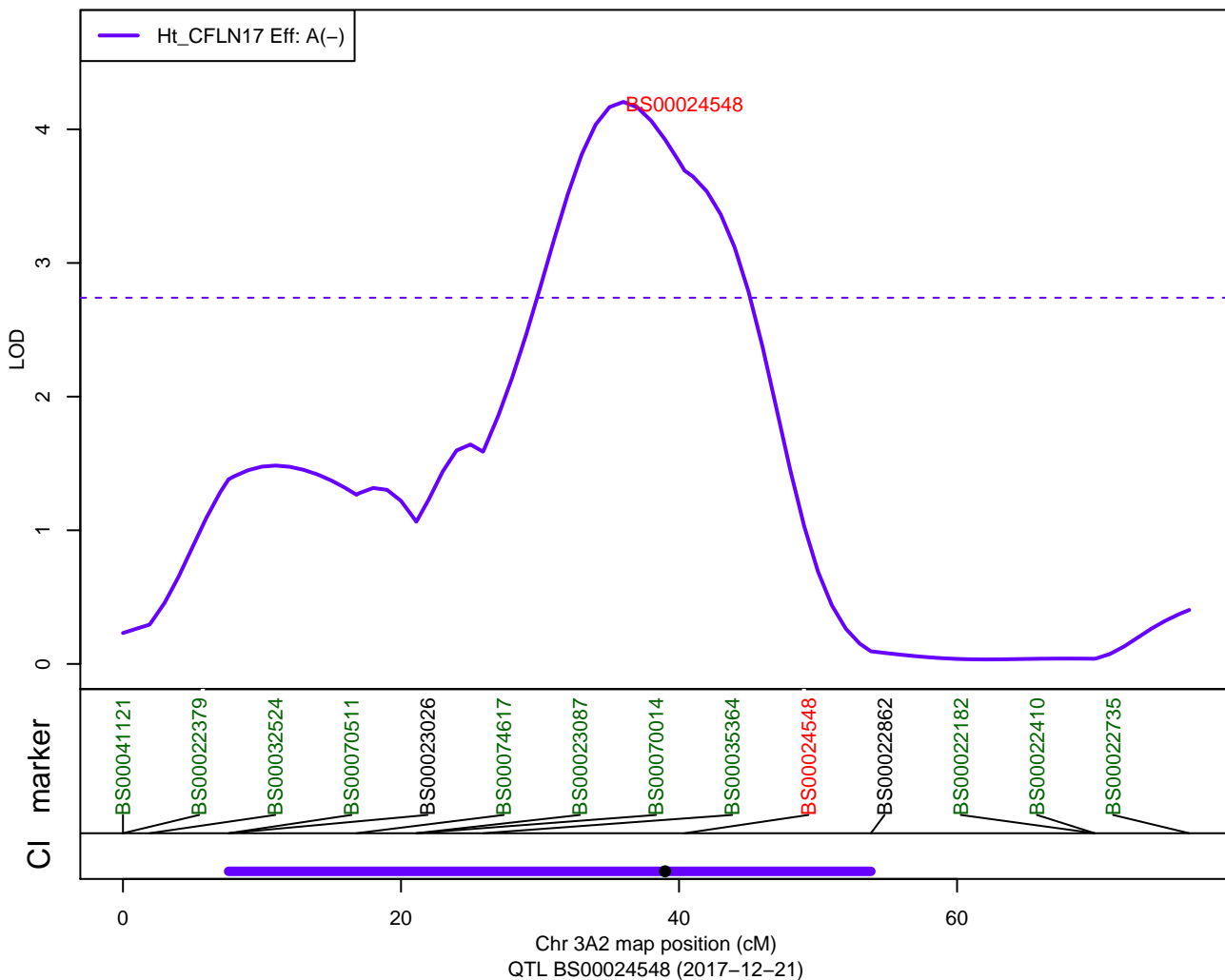
QTLs: ParW471 – Ht – 1A



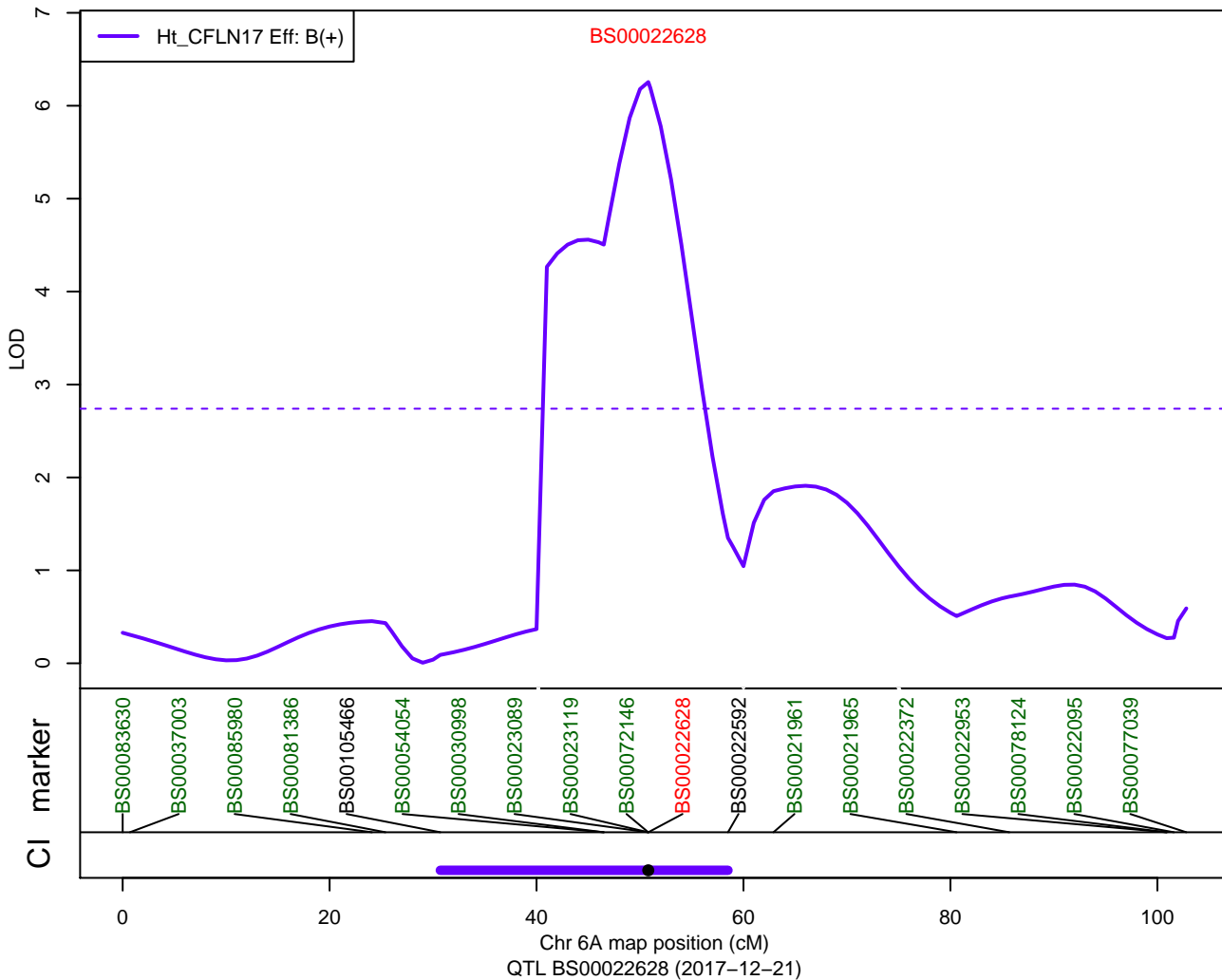
QTLs: ParW471 – Ht – 1B



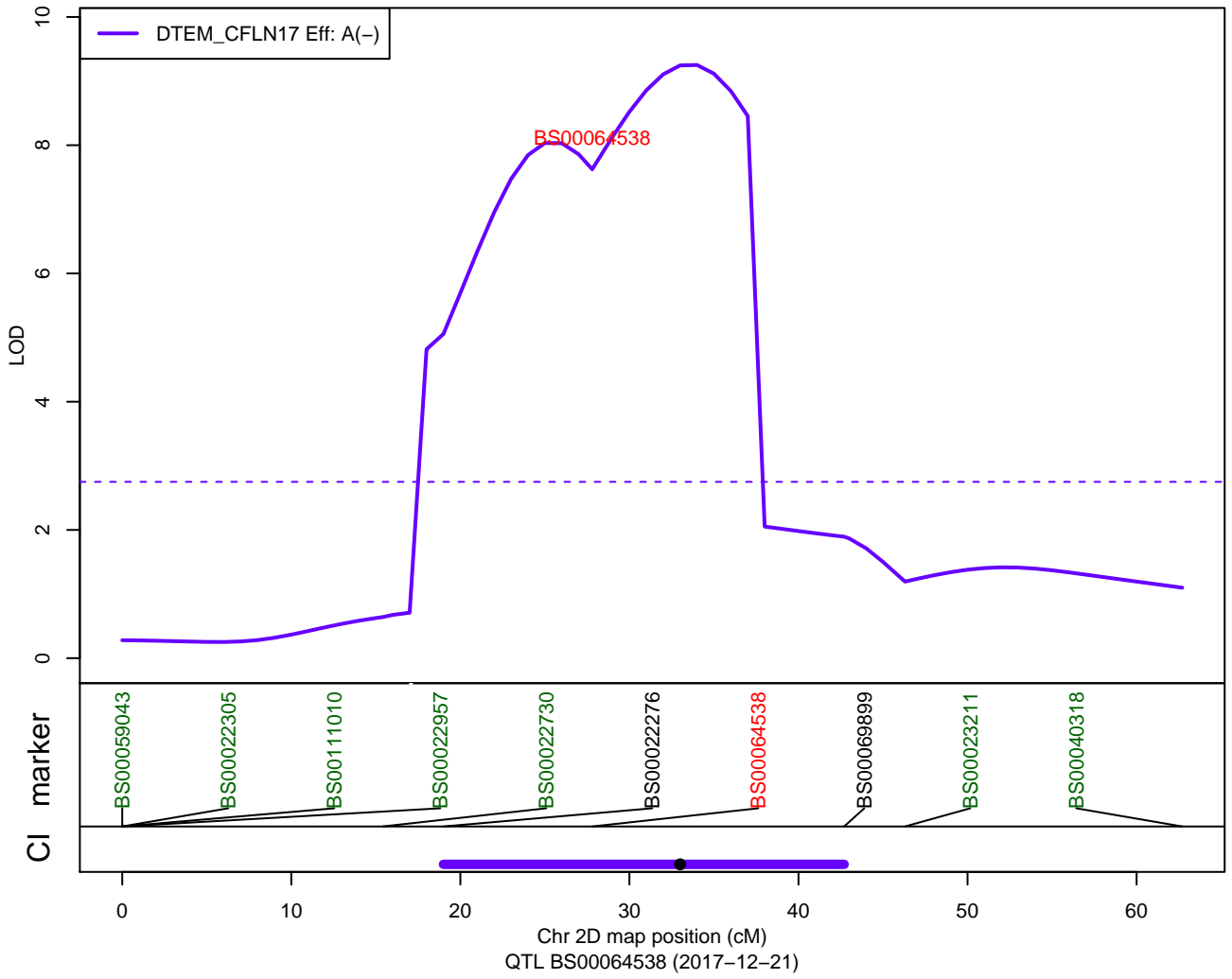
QTLs: ParW471 – Ht – 3A2



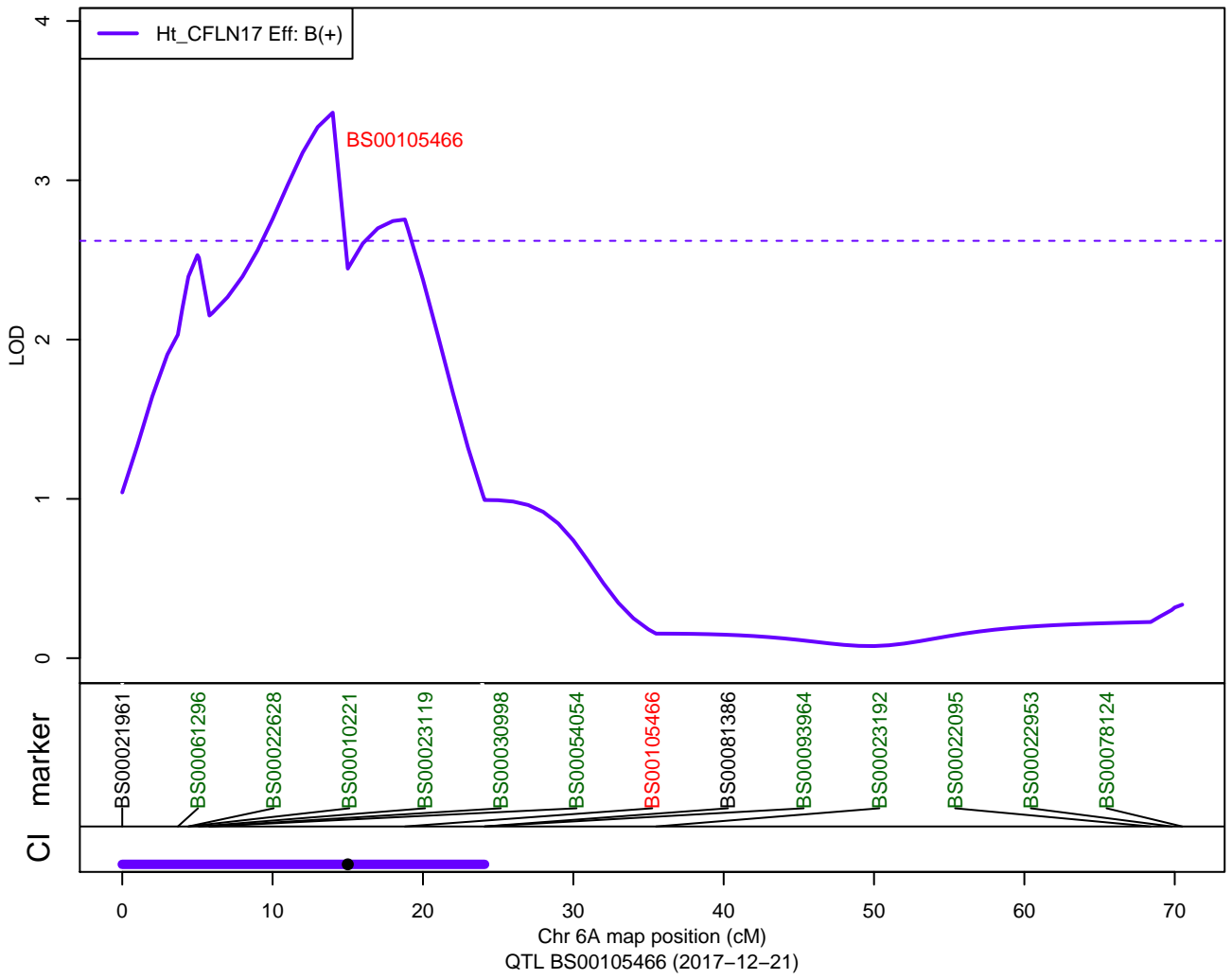
QTLs: ParW471 – Ht – 6A



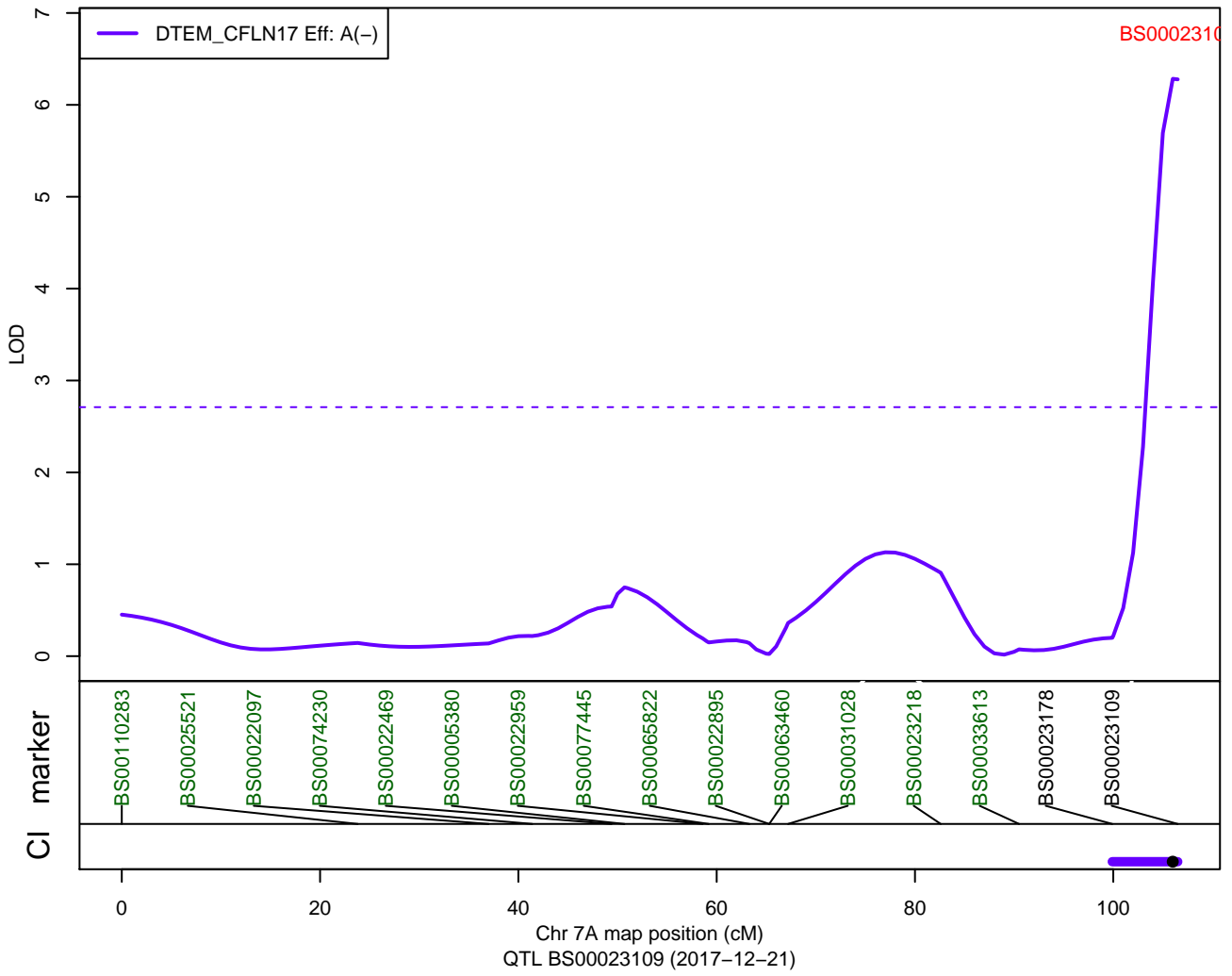
QTLs: ParW471 - DTEM - 2D



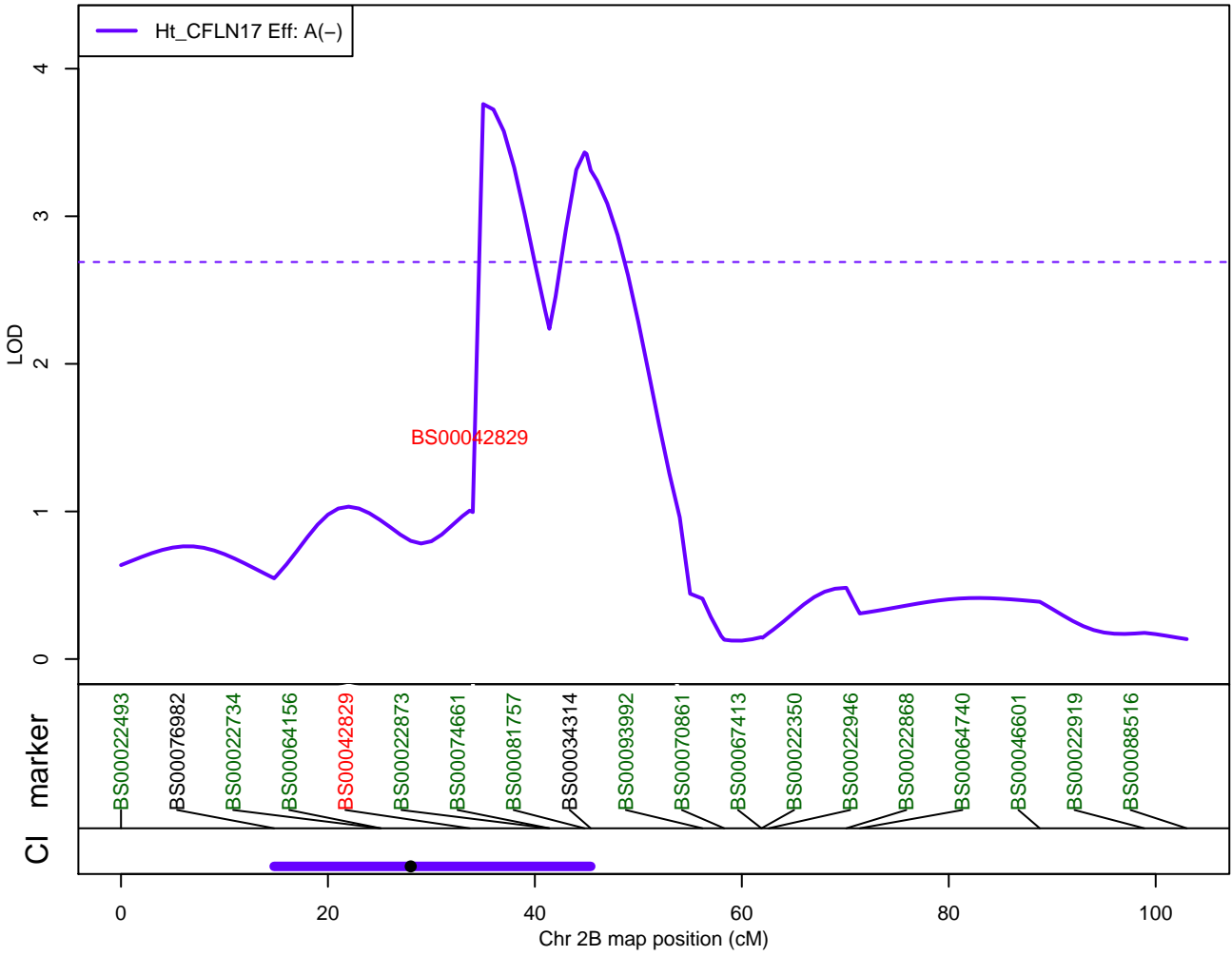
QTLs: ParW670 – Ht – 6A



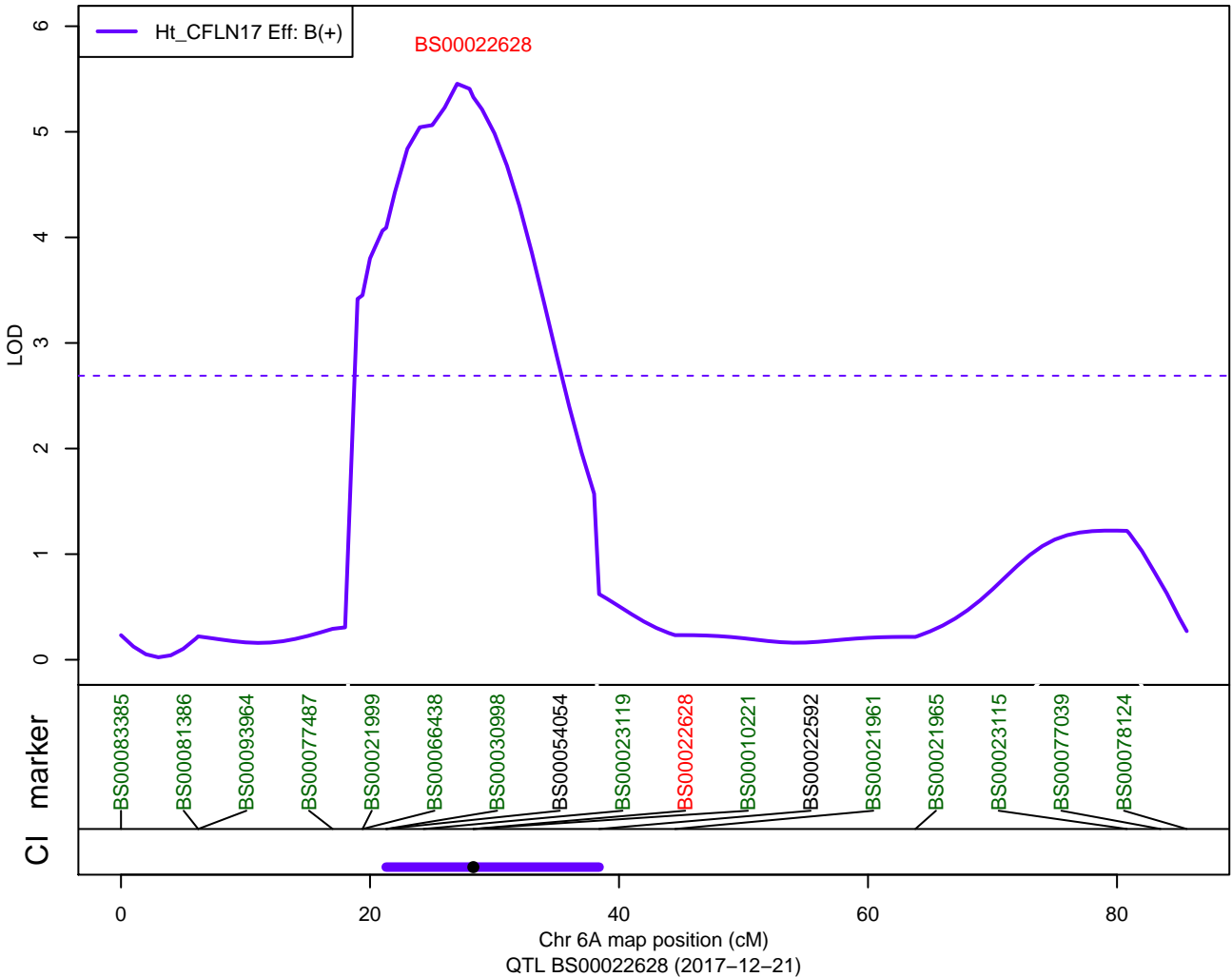
QTLs: ParW670 - DTEM - 7A



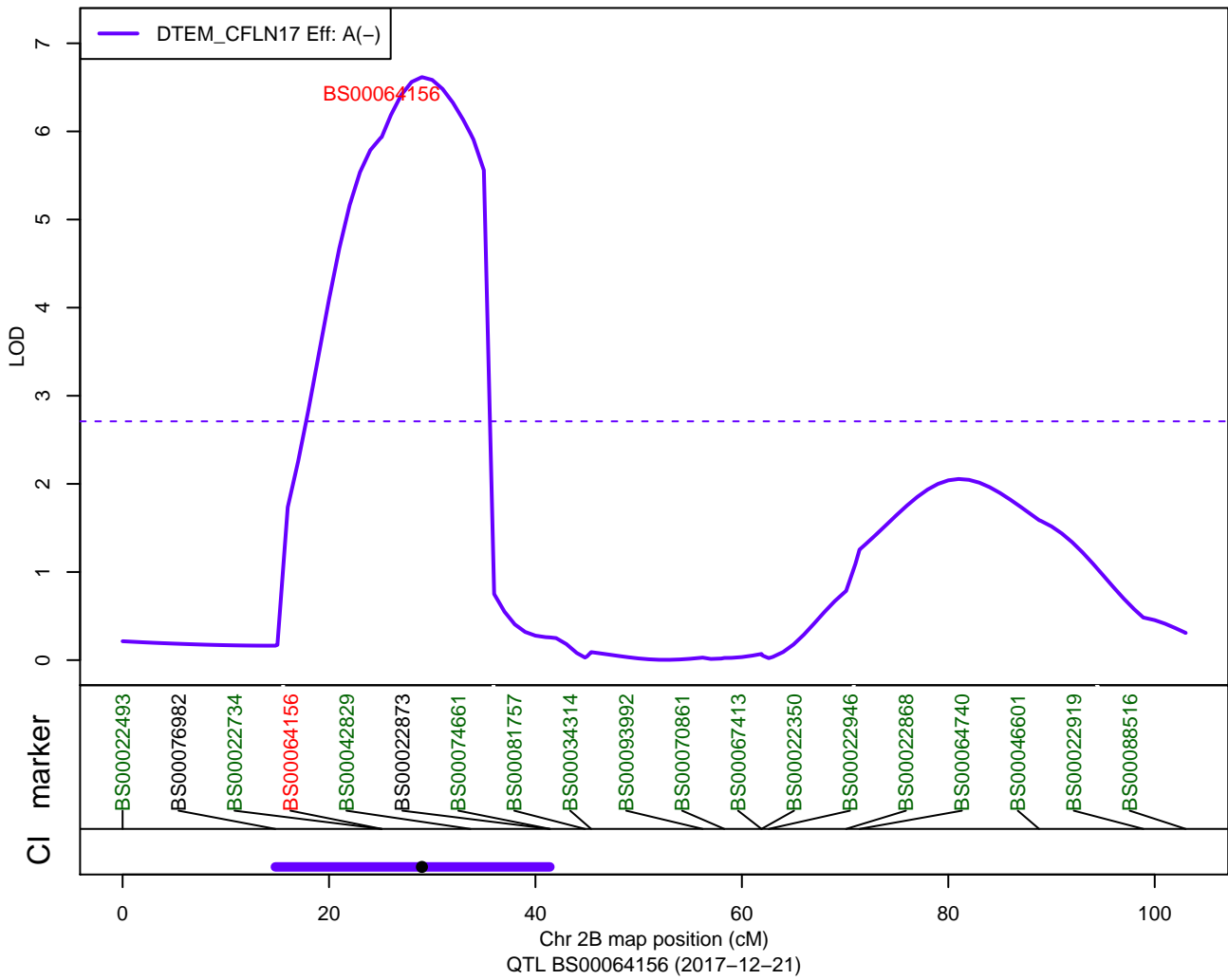
QTLs: ParW700 – Ht – 2B



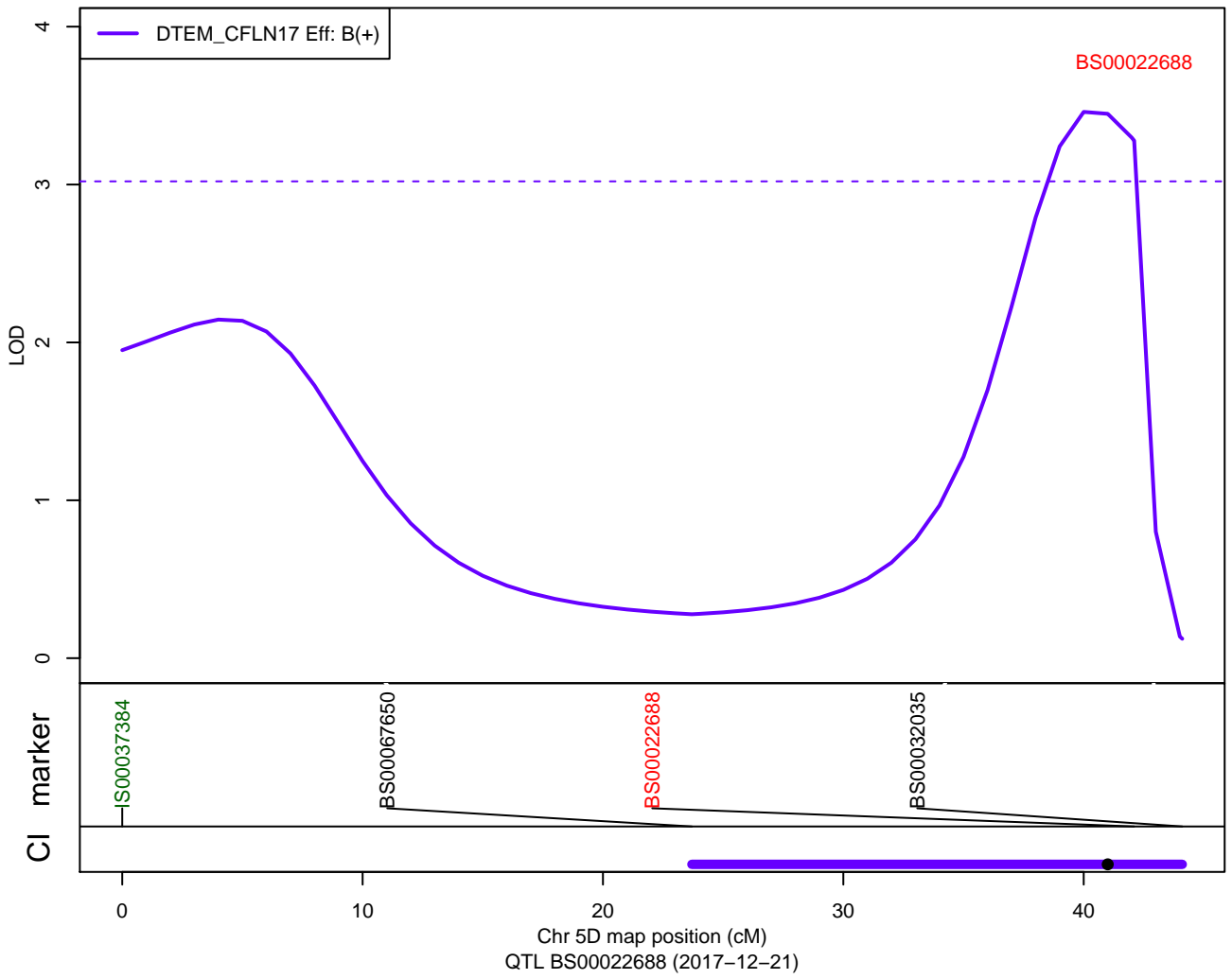
QTLs: ParW700 – Ht – 6A



QTLs: ParW700 - DTEM - 2B



QTLs: ParW740 – DTEM – 5D



QTLs: ParW749 - Ht - 1A

