## **SUPPLEMENTARY DATA**

## Homozygous duplication identified by whole genome sequencing causes *LRBA* deficiency

Daniele Merico<sup>a,b</sup>, Yehonatan Pasternak<sup>d,e,f</sup>, Mehdi Zarrei<sup>a</sup>, Edward J. Higginbotham<sup>a</sup>, Bhooma Thiruvahindrapuram<sup>a</sup>, Ori Scott<sup>d,e,f</sup>, Jessica Willett-Pachul<sup>e</sup>, Eyal Grunebaum<sup>e,f</sup>, Julia Upton<sup>e,f</sup>, Adelle Atkinson<sup>e,f</sup>, Vy H.D. Kim<sup>d</sup>, Elbay Aliyev<sup>g</sup>, Khalid Fakhro<sup>f,h</sup>, Stephen W. Scherer<sup>a,c</sup>, Chaim M. Roifman<sup>d,e,f\*</sup>

- a The Centre for Applied Genomics (TCAG), Program in Genetics and Genome Biology, The Hospital for Sick Children, Toronto, M5G 0A4, Ontario, Canada
- b Deep Genomics Inc., Toronto, M5G 1M1, Ontario, Canada
- c Department of Molecular Genetics, University of Toronto, Toronto, M5S 1A8, Ontario, Canada; McLaughlin Centre, University of Toronto, Toronto, M5G 0A4, Ontario, Canada
- d Canadian Center for Primary Immunodeficiency and the Jeffrey Modell Research Laboratory for the Diagnosis of Primary Immunodeficiency, Toronto, M5G1X8, Ontario, Canada
- e Division of Immunology and Allergy, Department of Paediatrics, The Hospital for Sick Children, Toronto, M5G 1X8, Ontario, Canada
- f University of Toronto, Toronto, M5S 1A8, Ontario, Canada
- g Department of Human Genetics, Sidra Medicine, Doha, Qatar
- h Department of Genetic Medicine, Weill-Cornell Medical College, Doha, Qatar

## Address for Correspondence:

Dr. Chaim M. Roifman, CM, MD, FRCPC, FCACB. Hospital for Sick Children, University of Toronto, Toronto, Ontario, Canada

Email: chaim.roifman@sickkids.ca Phone: 416-813-8629 Fax: 416-813-5932

<sup>\*</sup> corresponding author

## **FIGURE LEGENDS**

**Supplementary Figure 1:** GTEx junction analysis showing that junction 29, skipping exon 39, is predominantly expressed in all tissues.

**Supplementary Figure 2:** Probes for different SNP and CGH array platforms in the duplicated genomic region, as provided by DGV.

**Supplementary Data 1:** Prioritized rare SNVs and indels from WGS.

**Supplementary Data 2:** Rare CNVs from WGS.



