

## **Genomic profiling reveals mutational landscape in parathyroid carcinomas**

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## **SUPPLEMENTARY FIGURE LEGENDS**

**Supplementary Figure 1.** Mutation distribution for the CDC73 gene in the study cohort (top) & all cancer studies in cBioPortal (bottom) along the body of the gene. The colored rectangles represent the known functional domains of the translated protein.

**Supplementary Figure 2.** Mutation distribution for the ADCK1 gene in the study cohort (top) & all cancer studies in cBioPortal (bottom) along the body of the gene. The colored rectangles represent the known functional domains of the translated protein.

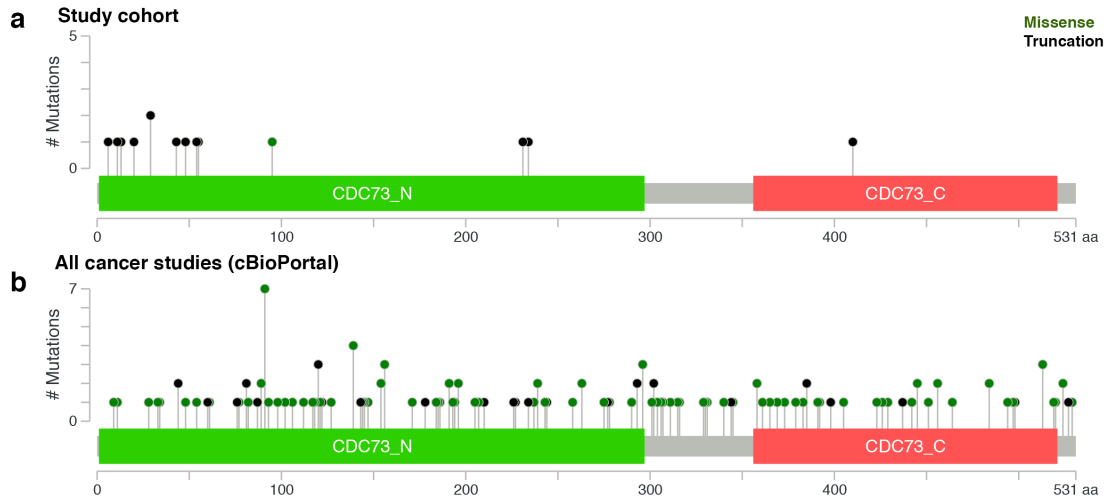
**Supplementary Figure 3.** Mutation distribution for the FAT3 gene in the study cohort (top) & all cancer studies in cBioPortal (bottom) along the body of the gene. The colored rectangles represent the known functional domains of the translated protein.

**Supplementary Figure 4.** Mutation distribution for the MTOR gene in the study cohort (top) & all cancer studies in cBioPortal (bottom) along the body of the gene. The colored rectangles represent the known functional domains of the translated protein.

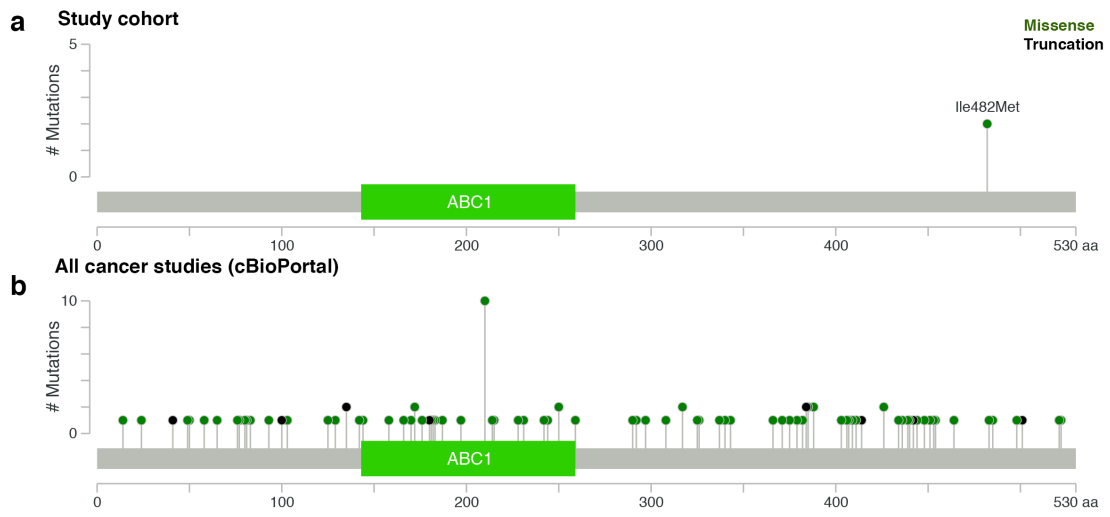
**Supplementary Figure 5.** Boxplots of the metrics for the ParThy panel with per-sample mean sequencing depth across all amplicons (a), total number of “PASS” variant calls (b) and variants with <2% population frequency in ESP6500, 1000 Genomes and ExAc and “high” or “moderate” predicted impact using SnpEff (c).

# SUPPLEMENTARY FIGURES

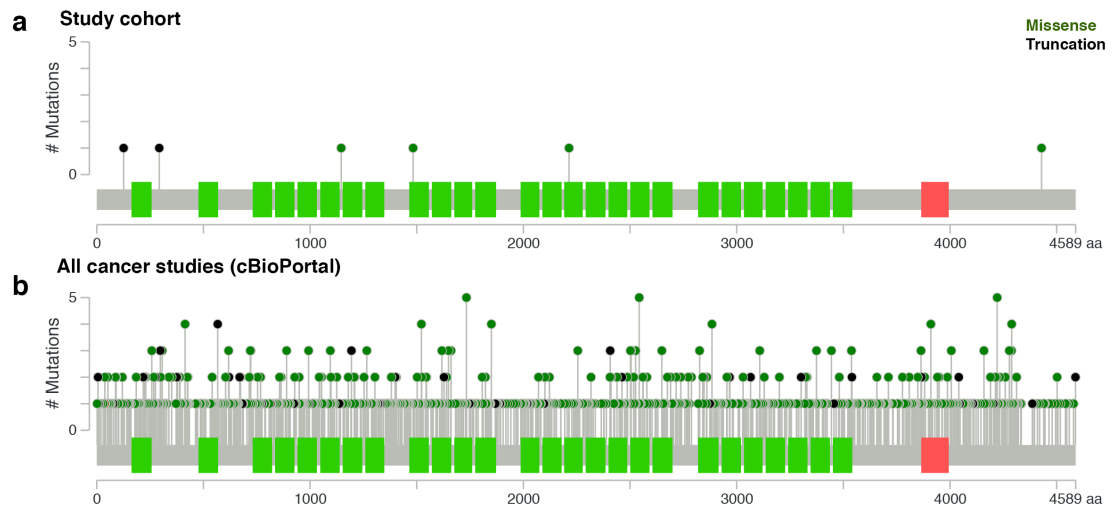
## Supplementary Figure 1



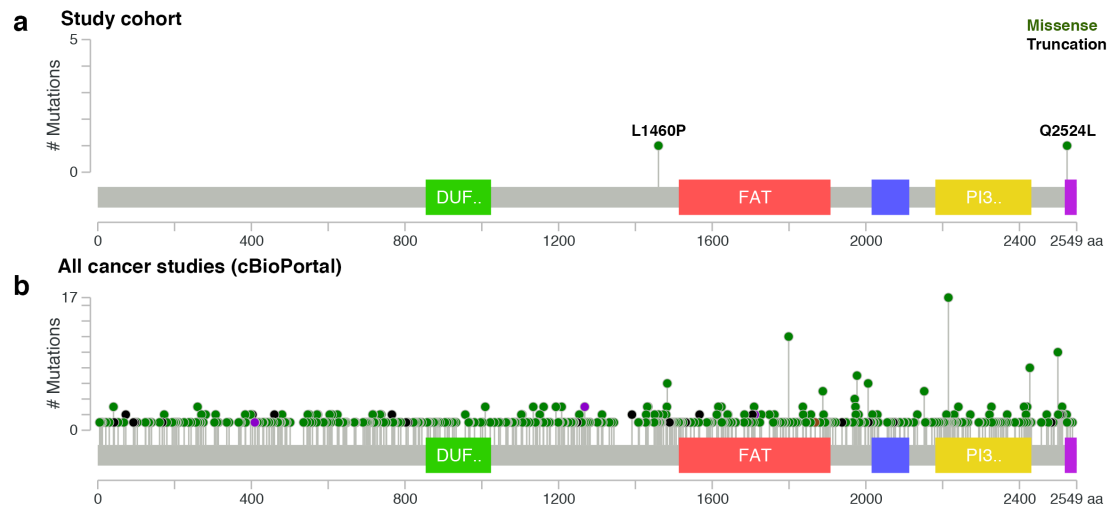
## Supplementary Figure 2



### Supplementary Figure 3

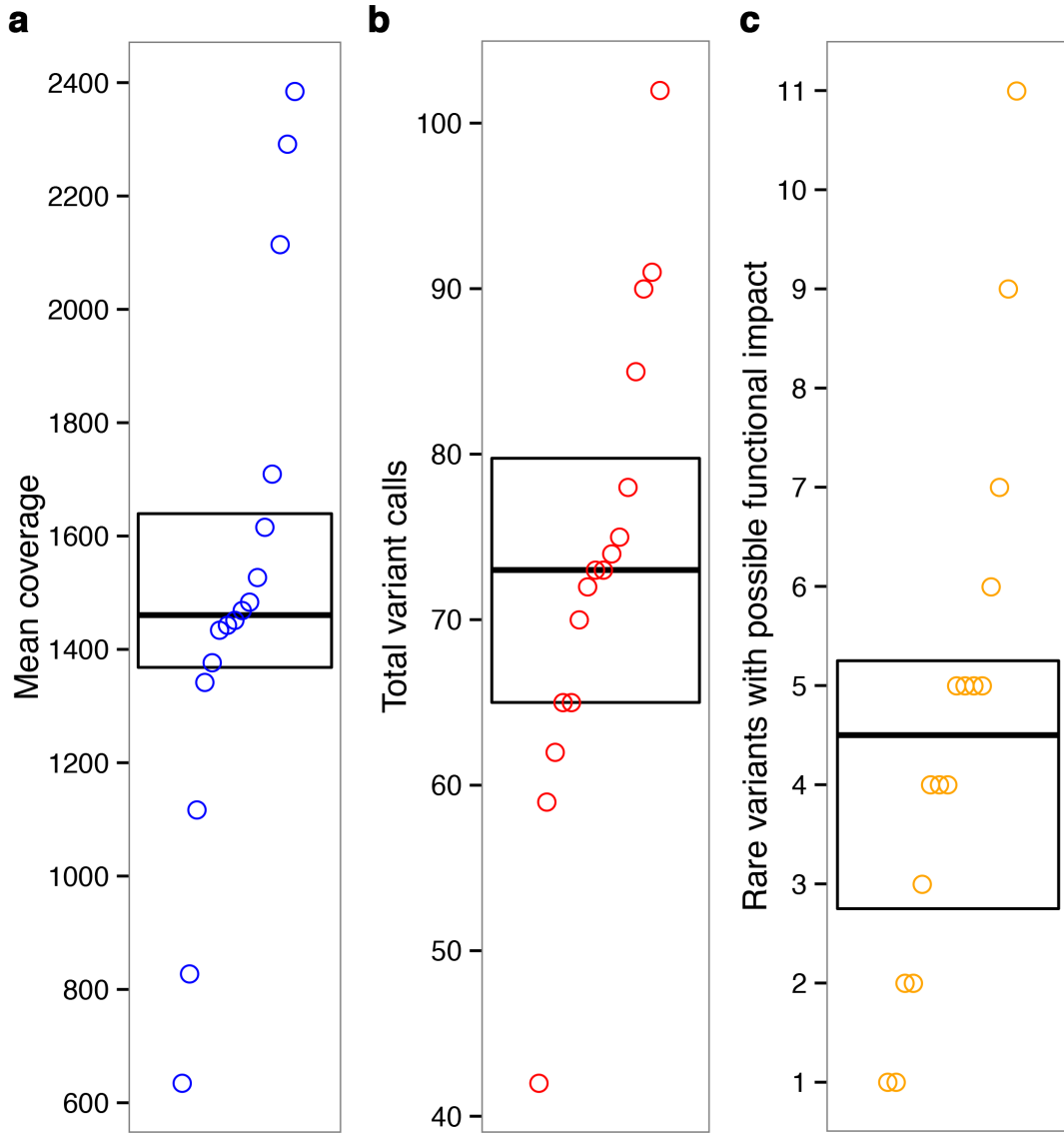


## Supplementary Figure 4





Supplementary Figure 5



## **SUPPLEMENTARY TABLES**

**Supplementary Table 1.** Detailed QC and coverage statistics on WES data produced per sample on the discovery cohort of 17 patients.

**Supplementary Table 2.** Number of somatic mutations per sample.

**Supplementary Table 3.** List of somatic mutations in the WES discovery cohort.

**Supplementary Table 4.** Recurrently mutated genes in the WES discovery cohort.

**Supplementary Table 5.** Germline and somatic mutations in CDC73.

**Supplementary Table 6.** Somatic mutations in Cancer Census Genes.

**Supplementary Table 7.** Somatic copy number alterations as detected by saasCNV from the WES data.

**Supplementary Table 8.** Biallelic loss events across patients in the discovery cohort.

**Supplementary Table 9.** List of genes in the ParThy panel and rationale for selection.

**Supplementary Table 10.** Detailed QC and coverage statistics of ParThy targeted panel results for 7 tumor samples. All metrics computed using the TorrentSuite software provided by Life Technologies.

**Supplementary Table 11.** List of variants detected across the 7 tumor samples using the ParThy panel.