

4p16.3-q12 duplication — WFS1 Molecular Atlas Card

Variant type: Copy-number variant (duplication)

Region: Chromosome 4p16.3-q12 (gene-level structural event)

CNV-GAIN — COPY-NUMBER DUPLICATION — 4P16.3-Q12

This is a large copy-number duplication spanning 4p16.3-q12 — a gene-level event causing an extra copy of this region (gene over-dosage / partial trisomy). CNVs act by dosage rather than by altering a single residue, so AlphaFold residue mapping, $\Delta\Delta G$, NMD and AlphaMissense don't apply. Therapeutically these are gene-replacement candidates (restore a working copy); per-residue chaperone/readthrough strategies are not relevant. Confirm breakpoints and gene content against the ClinVar record below.

CLINICAL EVIDENCE

- **Classification:** Pathogenic
 - **Review status:** criteria provided, single submitter
 - **Associated conditions:** Neurodevelopmental disorder
 - **ClinVar accession:** VCV002579174
 - **Genomic variant:** GRCh38/hg38 4p16.3-q12(chr4:85624-57073230)x3
 - **Last evaluated:** 2023/08/24 00:00
-

Card generated by wolfram-atlas-batch (CNV pipeline) on 2026-06-08T03:03:52.331599Z.

CNVs are gene-level events; WFS1 protein reference UniProt O76024 is not residue-mapped here.