

c.1024_1032dup — WFS1 Molecular Atlas Card

Variant type: In-frame indel

Change: 3 residue(s) deleted in frame at position 342

Domain context: Transmembrane helix 2

SCHEMA CATEGORY: I3 — MULTI-RESIDUE IN-FRAME INDEL — LIKELY MAJOR STRUCTURAL DISRUPTION

3 residues removed in frame around position 342 (Transmembrane helix 2). A change this size usually perturbs local packing and can propagate to the fold. Gene therapy is the primary path unless an AlphaFold prediction of the modified sequence shows a surprisingly intact fold. Predicted structure pending (ColabFold).

STRUCTURAL PREDICTION

- **Reading frame:** preserved (in-frame) — no premature stop, NMD does not apply.
- **Affected domain:** Transmembrane helix 2
- **Predicted modified structure:** _pending — AlphaFold/ColabFold prediction of the modified sequence and backbone-RMSD vs wild-type backfill here (Wave 2)._
[View structure](#)

CLINICAL EVIDENCE

- **Classification:** Likely pathogenic
- **Review status:** criteria provided, multiple submitters, no conflicts
- **Associated conditions:** Wolfram syndrome 1
- **cDNA change:** c.1024_1032dup
- **ClinVar accession:** VCV001709484
- **Last evaluated:** 2023/08/15 00:00

- **Submissions:** 1
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Card generated by `wolfram-atlas-batch` (in-frame indel pipeline) on 2026-06-08T02:40:58.283235Z.

Schema: `reference/card schemaextension.md` (I1–I3). WFS1: UniProt O76024, AlphaFold v6.