

R456C — WFS1 Molecular Atlas Card

Variant type: Missense

Substitution: Arginine (R) → Cysteine (C) at position 456

Domain context: Cytoplasmic loop 3

ALPHAMISSENSE

- **Pathogenicity score:** 0.2743
- **Class:** likely benign

ALPHAFOLD CONFIDENCE

- **pLDDT at residue 456:** 85.69

> **DynaMut2 $\Delta\Delta G$:** not yet computed for this variant — AlphaMissense + AlphaFold

> confidence shown above. Stability $\Delta\Delta G$ and the wild-type/mutant structural

> comparison backfill behind this note.

CLINICAL EVIDENCE

- **Classification:** Uncertain significance
- **Review status:** criteria provided, multiple submitters, no conflicts
- **Associated conditions:** Cataract 41; Wolfram syndrome 1; Autosomal dominant nonsyndromic hearing loss 6; Type 2 diabetes mellitus; Wolfram-like syndrome; WFS1-related disorder
- **cDNA change:** c.1366C>T
- **ClinVar accession:** VCV001318767
- **Last evaluated:** 2025/11/23 00:00
- **Submissions:** 1

Card generated by wolfram-atlas-batch (missense AlphaMissense mint) on 2026-06-08T02:27:33.546032Z.

AlphaMissense (Cheng et al. 2023) · AlphaFold model v6 · UniProt O76024.