

# E249= — WFS1 Molecular Atlas Card

**Variant type:** Synonymous (silent)

**Codon:** position 249 (Glutamic acid, E) — amino acid unchanged

**Domain context:** N-terminal cytoplasmic (intrinsically disordered)

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## SCHEMA CATEGORY: SILENT — SILENT — NO AMINO-ACID CHANGE

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No amino-acid change (E249 is unchanged): the codon is altered but the protein sequence is identical to wild-type. No structural, stability or AlphaMissense effect applies. Synonymous variants are typically benign unless they affect splicing or regulatory elements; this one is not adjacent to an exon boundary.

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## CLINICAL EVIDENCE

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- **Classification:** Likely benign
- **Review status:** criteria provided, multiple submitters, no conflicts
- **Associated conditions:** Autosomal dominant nonsyndromic hearing loss 6; Type 2 diabetes mellitus; Wolfram-like syndrome; Cataract 41; Wolfram syndrome 1
- **cDNA change:** c.747G>A
- **ClinVar accession:** VCV000738569
- **Last evaluated:** 2023/12/01 00:00
- **Submissions:** 1

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*Card generated by wolfram-atlas-batch (synonymous pipeline) on 2026-06-08T02:51:46.229123Z.*

*WFS1: UniProt O76024, AlphaFold v6. Synonymous variants carry no protein-structural effect.*