

# c.316-164A\_G — WFS1 Molecular Atlas Card

**Variant type:** Splice site

**Boundary:** acceptor (3' splice site) · intronic offset -164

**Nearest protein position:** ~106 (N-terminal cytoplasmic (intrinsically disordered))

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## SCHEMA CATEGORY: S3 — CRYPTIC DONOR ACTIVATION PREDICTED (SPliceAI $\Delta S$ 0.53)

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SpliceAI's strongest signal is a NEW cryptic donor site ( $\Delta S$  0.53, ~+0 nt from the variant; acceptor-gain 0.00, acceptor-loss 0.00, donor-gain 0.53, donor-loss 0.06). Cryptic activation produces a non-canonical junction whose reading-frame impact depends on the exact cryptic position — typically a partial exon gain/loss. Outcome is context-dependent; wet-lab RNA validation required. Flagged S3.

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## SPLICE PREDICTION

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- **Affected site:** acceptor (3' splice site), extended splice region
- **SpliceAI delta scores** (GRCh38 chr4:6288823 A>G):
  - acceptor gain **0.00** · acceptor loss **0.00**
  - donor gain **0.53** · donor loss **0.06**
- **Predicted outcome:** Cryptic donor activation predicted (SpliceAI  $\Delta S$  0.53)

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## CLINICAL EVIDENCE

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- **Classification:** Benign/Likely benign
- **Review status:** criteria provided, multiple submitters, no conflicts
- **Associated conditions:** Wolfram syndrome 1

- **cDNA change:** c.316-164A>G
  - **ClinVar accession:** VCV000672589
  - **Last evaluated:** 2018/06/14 00:00
  - **Submissions:** 1
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Card generated by `wolfram-atlas-batch` (splice pipeline) on 2026-06-08T07:50:13.551018Z.

Schema: `reference/card schemaextension.md` (S1–S3). WFS1: UniProt O76024, AlphaFold v6.