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We constrain the formation of exoplanet KOI 368.01 by measuring the angle between the stellar rotation axis and the planet orbit normal, known as the spin-orbit alignment (ϕ). Rossiter-McLaughlin results show that Hot Jupiters orbiting fast-rotating, gravity darkened stars are more likely to be spin-orbit misaligned, suggesting that their formation and/or evolution differ from that of solar system planets. However, the origin of intermediate planets such as KOI 368.01 (110.3 days) is still a mystery. Using the effects of gravity darkening on the Kepler transit lightcurve, we measured the projected alignment to be $\lambda = 11 \pm 4$ and the stellar obliquity to be $\psi = 8 \pm 10$. These values combine to constrain the total spin-orbit alignment of the system to be $\phi = 13 \pm 8$, consistent with alignment. This alignment implies that this object arrived at its present orbit via quiescent means (such as accretion or proplanetary disk accumulation), rather than under more extreme conditions, such as Kozai resonance or planet-planet scattering. KOI-368.01 is the second intermediate-period planet to have a constrained spin-orbit alignment after HD80606b, which is significantly misaligned.