

**DATA SHEET**

**Product Name:** Rapamycin

**Catalog #:** N-3022

**Alt:** Sirolimus; AY-22989; WY-090217; NSC-226080; Rapamune

**Molecular Mass:** 914.2 C<sub>51</sub>H<sub>79</sub>NO<sub>13</sub>

**Analysis:** >99% (TLC: 10% CH<sub>3</sub>OH in CH<sub>2</sub>Cl<sub>2</sub>; R<sub>f</sub>=0.51 and HPLC); NMR (conforms)

**Supplied As:** White crystalline powder

**Resuspension:** Soluble in DMSO (50 mg/ml); or ethanol (50 mg/ml) & organic solvents

**Storage:** Store desiccated as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 3 months.

**Description:** Potent immunosuppressant. The rapamycin-FKBP12 complex binds to and inhibits mTOR<sup>1</sup>. Inhibits IL-2-induced activation of p70 S6 kinase<sup>2</sup>. Extends lifespan of mice<sup>3</sup>. Induces autophagy in a variety of cell lines<sup>4</sup>.

**References:**

1. Huang, S., et al., (2003) Cancer Biol. Ther., 2: 222
2. Kuo, C.J., et al., (1992) Nature, 358: 70
3. Harrison, D.E., et al., (2009) Nature, 460: 392
4. Flemming, A., et al., (2011) Nat. Chem. Biol., 7: 9

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