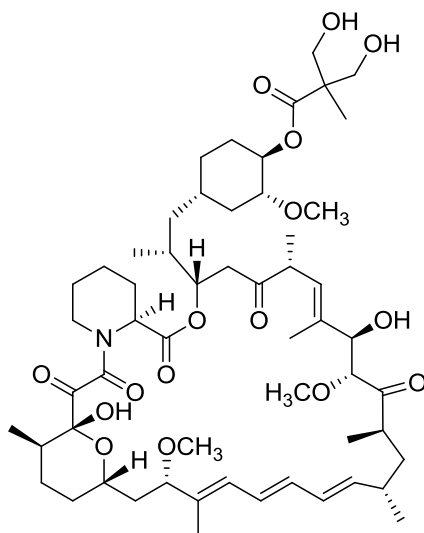


## Temsirolimus

Code No.: **BIA-T1386**

Pack sizes: **1 mg, 5 mg**



Synonyms :

### Specifications

CAS #	: 162635-04-3
Molecular Formula	: C <sub>56</sub> H <sub>87</sub> NO <sub>16</sub>
Molecular Weight	: 1030.3
Source	: <i>Streptomyces hygroscopicus</i>
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

### Application Notes

Temsirolimus is a semisynthetic macrocyclic lactone prepared from rapamycin by selective acylation of the 42-hydroxy group with a protected bis(dihydromethyl)propionic acid, followed by deprotection. Like all tacrolimus analogues, temsirolimus binds to receptor protein, FKBP12. The complex then binds to mTOR preventing it from interacting with target proteins. Temsirolimus is extensively cited in the literature with over 700 citations.

### References

1. Rapamycin hydroxyesters. Skotnicki J. US Patent 5,362,718, 1994.
2. CCI-779 inhibits rhabdomyosarcoma xenograft growth by an antiangiogenic mechanism linked to the targeting of mTOR/Hif-1 $\alpha$ /VEGF signaling. Wan X. et al., Neoplasia 2006, 8, 394.