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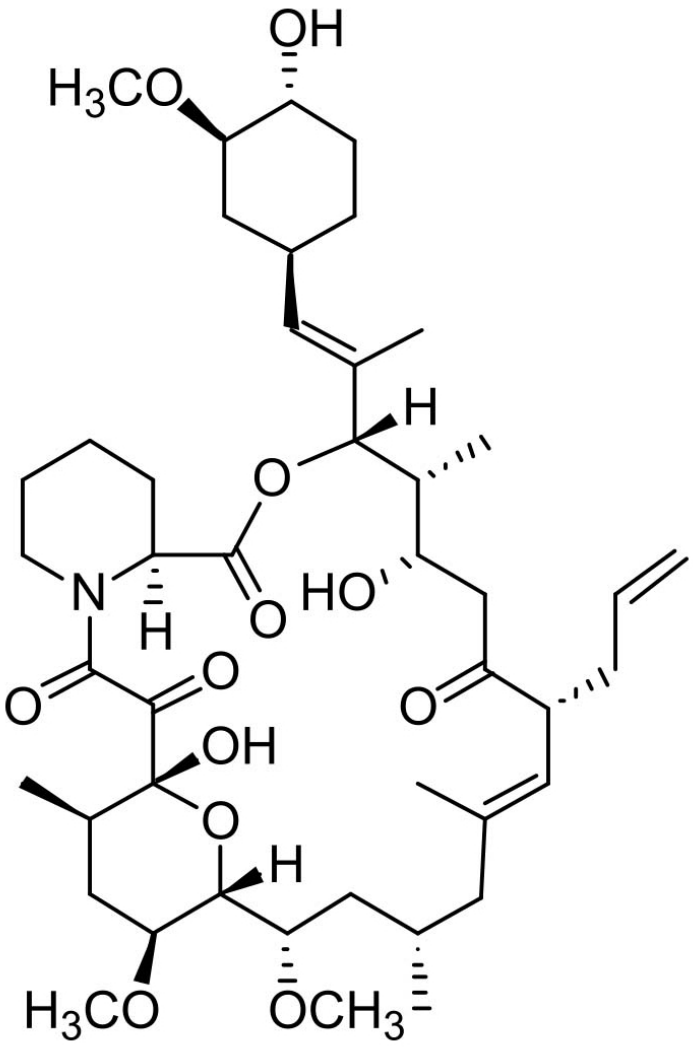
# PRODUCT DATA SHEET

Code No.: BIA-T1184

Pack sizes.: 25mg, 100mg

## Tacrolimus




Synonyms:
Fujimycin, FK506, FR900506, Tskubaenolide

## Specifications

| | |
|---|---|
| CAS # | **: 104987-11-3** |
| Molecular Formula | **: C44H69NO12** |
| Molecular Weight | **: 804** |
| Source | **: -** |
| Appearance | **: White solid** |
| Purity | **: >99% by HPLC** |
| Long Term Storage | **: -20°C** |
| Solubility | **: Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.** |

## Application Notes

Tacrolimus (fujimycin) was discovered as a potent inhibitor of IL2 production in a targeted search for novel immunosuppressants. Tacrolimus acts by blocking T cell proliferation in vitro by inhibiting the generation of several lymphokines, notably the original target IL-2. Tacrolimus inhibits the activity of FK-506 binding protein, Ca2+-dependent phosphatase and calcineurin, and activates NF-κB through phosphorylation and degradation of IκBα.

## References


1. FK-506, a novel immunosuppressant isolated from a Streptomyces. I. Fermentation, isolation, and physico-chemical and biological characteristics. Kino T. et al., J. Antibiot. 1987, 40, 1249.
2. Cyclosporin A and FK506: molecular mechanisms of immunosuppression and probes for transplantation biology. Bierer B.E. et al., Curr. Opin. Immunol. 1993, 5, 763.
3. Immunosuppressant FK506 activates NF-kappaB through the proteasome-mediated degradation of IkappaBalpha. Requirement for Ikappabalpha n-terminal phosphorylation but not ubiquitination sites. Zhang Y. et al., J. Biol. Chem. 1999, 274, 34657.