



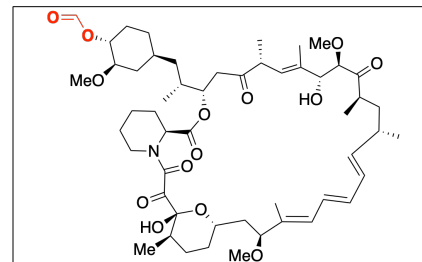
# LKT Laboratories, Inc.

## Everolimus EP Impurity E

Phone: 888-558-5227  
651-644-8424  
Fax: 888-558-7329  
Email: [getinfo@lktlabs.com](mailto:getinfo@lktlabs.com)  
Web: [lktlabs.com](http://lktlabs.com)

### Product Information

**Product ID** E846182  
**CAS No.** 159351-69-65, 1237826-25-3  
**Chemical Name** (3S,6R,9R,10R,12R,14S,21S,23S,26R,27R,34aS)-3-[(1R)-2-[(1S,3R,4S)-4-(Formyloxy)-3-methoxycyclohexyl]-1-methylethyl-9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-hexadecahydro  
**Synonym** 41-Formyl-rapamycin; 41-formyl rapamycin; 42-O-Formyl Rapamycin  
**Formula** C<sub>52</sub>H<sub>79</sub>NO<sub>14</sub>  
**Formula Wt.** 942.18  
**Melting Point**  
**Purity** ≥80%  
**Solubility**



### Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
E846182	5 mg	\$2704.00
E846182	10 mg	\$4206.00
E846182	25 mg	\$9013.00

**Store Temp** -20°C  
**Ship Temp** Ambient

**Description** Everolimus EP Impurity E is an impurity of Everolimus. Everolimus is an inhibitor of mammalian target of rapamycin 1 (mTOR1) that is used clinically for its immunosuppressive activity in renal transplant recipients and is currently in clinical trials exploring its anticancer chemotherapeutic activity. In nasopharyngeal carcinoma cells, everolimus induces apoptosis and autophagy, inhibiting cell growth. In esophageal cancer cells, everolimus decreases expression of mTOR targets p70S6K and S6, increasing cell damage and decreasing cell proliferation. In animal models of experimental autoimmune uveoretinitis (EAU), everolimus decreases levels of Th1, Th2, and Th17 cytokines and increases levels of Treg cells, attenuating disease pathology. Additionally, everolimus exhibits nephroprotective benefit at low doses, decreasing adriamycin-induced proteinuria and improving renal function in animal models of nephrotic syndrome.

**References** Sendur MA, Zengin N, Aksoy S, et al. Everolimus: a new hope for patients with breast cancer. *Curr Med Res Opin.* 2014 Jan;30(1):75-87. PMID: 24050600.

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Hennig M, Bauer D, Wasmuth S, et al. Everolimus improves experimental autoimmune uveoretinitis. *Exp Eye Res.* 2012 Dec;105:43-52. PMID: 23059401.

Ramadan R, Faour D, Awad H, et al. Early treatment with everolimus exerts nephroprotective effect in rats with adriamycin-induced nephrotic syndrome. *Nephrol Dial Transplant.* 2012 Jun;27(6):2231-41. PMID: 22036940.

Wang ZG, Fukazawa T, Nishikawa T, et al. RAD001 offers a therapeutic intervention through inhibition of mTOR as a potential strategy for esophageal cancer. *Oncol Rep.* 2010 Apr;23(4):1167-72. PMID: 20204306.

Kahan BD, Koch SM. Current immunosuppressant regimens: considerations for critical care. *Curr Opin Crit Care.* 2001 Aug;7(4):242-50. PMID: 11571421.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.