PRODUCT INFORMATION

Content:
- 5 mg Everolimus

Storage and stability:
- Everolimus is provided as a translucent film and shipped at room temperature. Store at -20°C. Solid product is stable for 2 years when properly stored.
- Upon resuspension in DMSO, prepare aliquots of everolimus and store at -20°C or -80°C. Avoid repeated freeze-thaw cycles. Resuspended product is stable for 3 months at -20°C and for 6 months at -80°C.

Quality control:
- Purity: ≥98% (UHPLC)
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

CHEMICAL PROPERTIES

Synonym: RAD001
CAS number: 159351-69-6
Formula: C53H83NO14
Molecular weight: 958.22
Solubility: 10 mg/ml in DMSO

DESCRIPTION

Everolimus (RAD001), a derivative of rapamycin, is an inhibitor of mTOR. mTOR is a key downstream protein kinase of PI3K/Akt signaling pathway, and plays a central role in controlling cancer cell growth. Everolimus is currently used as an immunosuppressant to prevent the rejection of organ transplants and for the treatment of certain types of cancer. It has been demonstrated that in cancer models that everolimus promotes autophagy through the inhibition of mTOR.


METHODS

Preparation of everolimus stock solution (10 mM)
1. Add 522 µl DMSO to 5 mg everolimus.
2. Vortex until complete solubilization.
3. Prepare aliquots and store stock solution at -20°C or -80°C.
4. Further dilutions can be prepared using aqueous buffers. We do not recommend storing the aqueous solution for more than one day.

Working concentration: 1 - 300 nM for cell culture assays

PROTOCOLS (For reference only)

Cell Culture Assay
Cells: Triple-negative breast cancers (TNBCs)
Working concentration: 1 - 300 µM
Incubation time: 12 h
Method: Cell proliferation assays

RELATED PRODUCTS

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<th>Product</th>
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<td>ttrl-peri</td>
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<tr>
<td>Rapamycin (mTOR inhibitor)</td>
<td>ttrl-rap</td>
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<tr>
<td>SB203580 (p38 MAP kinase &amp; Akt inhibitor)</td>
<td>ttrl-sb20</td>
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TECHNICAL SUPPORT
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