CAY10512 is an analog of Resveratrol that is 100-fold more potent (IC₅₀ = 150 nM) at inhibiting NF-κB activation by TNF-α (Heynekamp et al.). Unlike Resveratrol and some other trans-stilbene analogs, CAY10512 does not exhibit antioxidant activity (up to 15 µM) in either the ferric reducing/antioxidant power (FRAP) or total radical antioxidant parameter (TRAP) assays (Heynekamp et al.). Like Resveratrol, CAY10512 also inhibits lipopolysaccharide-induced expression of COX-2 (Heynekamp et al.).

Molecular Name: CAY10512
Alternative Names: Not applicable
CAS Number: 139141-12-1
Chemical Formula: C₁₅H₁₃FO
Molecular Weight: 228.3 g/mol
Purity: ≥ 97%
Chemical Name: 1-fluoro-2-[2-(4-methoxyphenyl) ethenyl]-benzene

Properties
Physical Appearance: A crystalline solid
Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Solubility:
- DMSO ≤ 8 mM
- Absolute ethanol ≤ 2 mM
For example, to prepare a 5 mM stock solution in DMSO, resuspend 100 mg in 87.6 mL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.
Published Applications

IMMUNOLOGY
- Protects human islets from instant blood-mediated inflammatory response leading to improved survival of transplanted islets in in vitro tube model (Kanak et al.).

DISEASE MODELING

References

Related Small Molecules
For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.