Celastrol

(9β,13α,14β,20α)-3-Hydroxy-9,13-dimethyl-2-oxo-24,25,26-trinoroleana-1(10),3,5,7-tetraen-29-oic acid

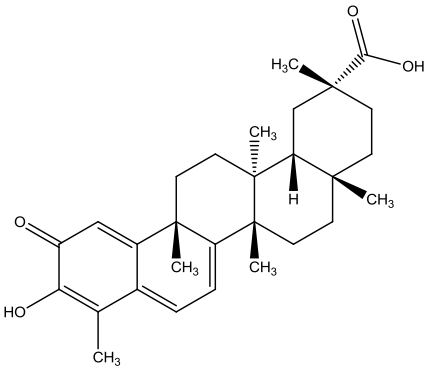
Cat. # SI9740

Background: Celastrol is naturally occurring triterpenoid antioxidant compound with anti-inflammatory activity. Inhibits NFκB (IC_{50} = 270 nM). It induces heat shock response and cytoprotection in various cells. Celastrol inhibits 20S proteasome chymotrypsin-like activity (IC_{50} = 2.5 μM). Cell permeable.

Application: Inhibition of NFκB-dependent pathways and of 20S proteasome chymotrypsin-like activity.

Product Information

CAS No.	34157-83-0
Purity:	> 98% (TLC); NMR (Conforms)
Molecular Weight:	450.6 Da
Physical State:	Red powder
Quantity:	10 mg, 50 mg
Solubility:	DMSO (45mg/ml) or Ethanol (30mg/ml)
Storage:	Store desiccated as supplied at 4°C for up to 2 years. Store solutions at -20°C for up to one month. Protect from light.



Formula: $C_{29}H_{38}O_4$

References

1. Sethi G et al. Celastrol, a novel triterpene, potentiates TNF-induced apoptosis and suppresses invasion of tumor cells by inhibiting NF-kappaB-regulated gene products and TAK1-mediated NF-kappaB activation. *Blood*, 2007, **109**:2727
2. Westerheide SD et al. Celastrols as inducers of the heat shock response and cytoprotection. *J. Biol. Chem*. 2004. **279**:56053
3. Kiaei M, et al.Celastrol blocks neuronal cell death and extends life in transgenic mouse model of amyotrophic lateral sclerosis: *Neurodegener. Dis.* 2005, **2:** 246.