Product Description

16,16-Dimethyl Prostaglandin E2 (16,16-Dimethyl PGE2), a stabilized derivative of PGE2, is a competitive inhibitor of 15-hydroxy prostaglandin dehydrogenase (15-hydroxy PGDH), but it is not a substrate for the enzyme (North et al.; Ohno et al). Because of its resistance to metabolism by 15-hydroxy PGDH, 16,16-Dimethyl PGE2 has a prolonged half-life in vivo. 16,16-Dimethyl PGE2 acts as an agonist on most prostaglandin E (EP) receptor subtypes (Coleman et al.; Robert et al.). The Kd for activation of isolated EP2 receptors is about 1 nM (Coleman et al.). 16,16-Dimethyl PGE2 is supplied in methyl acetate solution at 10 mg/mL (26 mM).

Molecular Name: 16,16-Dimethyl Prostaglandin E2
Alternative Names: 16,16-dimethyl PGE2
CAS Number: 39746-25-3, 79-20-9
Chemical Formula: C_{22}H_{36}O_{5}
Molecular Weight: 380.5 g/mol
Purity: ≥ 98%
Chemical Name: 9-oxo-11α,15R-dihydroxy-16,16-dimethyl-prosta-5Z,13E-dien-1-oic acid
Structure:

Properties

Physical Appearance: A solution in methyl acetate
Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light.
Solubility: Not applicable.

Stable as supplied for 12 months from date of receipt.
Published Applications

MAINTENANCE AND SELF-RENEWAL
· Increased hematopoietic stem and progenitor cell (HSPC) numbers in zebrafish aorta-gonad-mesonephros (AGM) region and mouse bone marrow (North et al.).
· Mediates the effects of WNT on zebrafish HSPC self-renewal (Goessling et al.).

References


Related Small Molecules

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

This product is hazardous. Please refer to the Safety Data Sheet (SDS).