
Product Data Sheet

Product Name: Adapalene sodium salt

Cat. No.: GC14379

Chemical Properties

Cas. No. 911110-93-5

Chemical Name sodium 6-(3-((3r,5r,7r)-adamantan-1-yl)-4-methoxyphenyl)-2-naphthoate

SMILES COC1=C(C23C[C@@]4([H])C[C@](C2)([H])C[C@](C3)([H])C4)C=C(C5=CC=C6C=C(C([O-])=O)C=CC6=C5)C=C1.[Na+]Formula C₂₈H₂₇NaO₃ M.Wt 434.5

Solubility ≥ 4.35mg/mL in DMSO with gentle warming Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Adapalene sodium salt (CD 271; Differin), a synthetic retinoid, is a Retinoic acid receptor agonist (RAR). Target: Retinoic acid receptor agonist (RAR). Adapalene sodium salt is a third-generation topical retinoid primarily used in the treatment of mild-moderate acne and is also used (off-label) to treat keratosis pilaris as well as other skin conditions. Adapalene sodium salt is possibly more effective than tretinoin 0.025% gel in the treatment of acne vulgaris [1]. Thirty-six rats of either sex were divided into six groups (two control groups, and an etodolac, indomethacin, tretinoin and adapalene sodium salt group) of six animals each. Each group was given different drugs or chemicals. The inhibitory activities of the drugs were determined on carrageenan-induced rat-paw oedema. The inhibition rate (53.48%) in the tretinoin group was found to be higher than adapalene sodium salt and controls ($P < 0.05$). Adapalene sodium salt was found to have an inhibition rate of 10.28%, and when compared with the other groups, was found to have no statistically significant anti-inflammatory activity [2]. Clinical indications: Acne;

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Purpura; Sunburn
FDA Approved Date: 1996
Toxicity: Skin redness; dryness; itching; scaling; mild burning

References:

- [1]. Ellis CN, et al. Comparison of adapalene 0.1% solution and tretinoin 0.025% gel in the topical treatment of acne vulgaris. Br J Dermatol. 1998 Oct;139 Suppl 52:41-7.
- [2]. Akdeniz N, et al. Anti-inflammatory effects of tretinoin (all-trans-retinoic acid) 0.1% and adapalene 0.1% in rats. Clin Exp Dermatol. 2005 Sep;30(5):570-2.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA