

SPACE peptide acetate

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Keep away from moisture

Storage:

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	SPACE peptide acetate is a skin penetrating peptide that facilitates the transfer of molecules through the skin.
Targets(IC50)	Others
In vitro	SPACE peptide, when conjugates to cargoes such as small molecules and proteins, is able to facilitate their penetration across the stratum corneum into epidermis and dermis. The peptide also exhibits increased penetration into various cells including keratinocytes, fibroblasts, and endothelial cells, likely through a macropinocytosis pathway[1]. SPACE enhances cyclosporine A, penetration into the skin significantly. It does not alter the skin lipid barrier. It interacts with skin proteins and induces changes in skin protein secondary structures (α -helices, β -sheet, random coils and turns). SPACE enhances cyclosporine A skin penetration, via a transcellular pathway, enhancing its partitioning into keratin-rich corneocytes through concurrent binding of SPACE with keratin and cyclosporine A. Interaction between SPACE and keratin best correlates with measured cyclosporine A skin transport[2]. SPACE-peptide in combination with a DOTAP-based ethosomal carrier system can enhance skin delivery of siRNA[3]. The SPACE-ethosomal system enhances hyaluronic acid penetration into porcine skin in vitro by 7.8 +/-1.1-fold compared to PBS[4].
In vivo	The efficacy of DOTAP-SES in delivering GAPDH-siRNA into skin is confirmed in BALB/C mice. Topical application of DOTAP-SES on mice skin results in 63.2%±7.7% of GAPDH knockdown, which is significantly higher than that from GAPDH-siRNA PBS (p<0.05) [3].

Reference

Hsu T, et al. Delivery of siRNA and other macromolecules into skin and cells using a peptide enhancer. Proc Natl Acad Sci U S A. 2011 Sep 20;108(38):15816-21.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286

E_mail:info@targetmol.com

Address:34 Washington Street,Wellesley Hills,MA 02481