

Product Data Sheet

Product Name: B7-33
Cat. No.: GC82348

Chemical Properties

Cas. No. 1818415-56-3

Formula $C_{131}H_{229}N_{41}O_{36}S$ M.Wt 2986.54

Solubility H_2O : ≥ 20 mg/mL (6.70 mM) Storage Sealed storage, away from moisture

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

Val-Ile-Lys-Leu-Ser-Gly-Arg-Glu-Leu-
Val-Arg-Ala-Gln-Ile-Ala-Ile-Ser-Gly-Met-
Ser-Thr-Trp-Ser-Lys-Arg-Ser-Leu-NH₂

Background

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

B7-33 is a single-chain relaxin mimetic and a selective relaxin receptor 1 (RXFP1) agonist. B7-33 phosphorylates ERK1/2 without inducing activation of the cAMP signaling pathway. B7-33 exhibits anti-fibrotic and cardioprotective activities. B7-33 can be used in the research of vascular diseases such as cardiomyopathy, myocardial infarction and fibrosis [1] [2].

In Vivo, B7-33 (0.25 mg/kg; i.p.; twice daily; 7 days) exerts a protective effect in a mouse model of ischemia-reperfusion^[1]. B7-33 (0.25 mg/kg; s.c.; 7 days) exerts cardioprotective effects in a mouse model of cardiomyopathy^[2].

In Vitro, B7-33 (10-100 nM) increases the survival rate of primary adult mouse cardiomyocytes subjected to simulated ischemia-reperfusion treatment via an ERK 1/2-dependent mechanism^[1]. B7-33 (10-100 nM; 12 h) increases the survival rate of primary adult mouse cardiac fibroblasts subjected to simulated ischemia-reperfusion^[1]. B7-33 (10-100 nM) dose-dependently increases the phosphorylation level of ERK1/2 in primary cardiomyocytes of adult mice^[1]. B7-33 (100 nM; 24 h) reduces the expression of inflammasome marker ASC and endoplasmic reticulum stress marker GRP78 in adult primary mouse cardiomyocytes subjected to simulated ischemia-reperfusion^[1].

References:

[1]. Devarakonda T, et al. B7-33, a Functionally Selective Relaxin Receptor 1 Agonist, Attenuates Myocardial Infarction-Related Adverse Cardiac Remodeling in Mice. J Am Heart Assoc. 2020;9(8):e015748.

[2]. Alam F, et al. The single-chain relaxin mimetic, B7-33, maintains the cardioprotective effects of relaxin and more rapidly reduces left ventricular fibrosis compared to perindopril in an experimental model of cardiomyopathy. Biomed Pharmacother. 2023;160:114370.

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