# HSDVHK-NH2 TFA

| | |
|---|---|
| **Cat. No.:** | HY-P1187A |
| **Molecular Formula:** | $C_{32}H_{49}F_3N_{12}O_{11}$ |
| **Molecular Weight:** | 834.8 |
| **Sequence Shortening:** | HSDVHK-NH2 |
| **Target:** | Integrin |
| **Pathway:** | Cytoskeleton |
| **Storage:** | Please store the product under the recommended conditions in the COA. |

## BIOLOGICAL ACTIVITY

**Description**

HSDVHK-NH2 TFA is an antagonist of the **integrin αvβ3-vitronectin** interaction, with an **$IC_{50}$** of 1.74 pg/mL (2.414 pM)[1][2].

**In Vitro**

HSDVHK significantly inhibited bFGF-induced cell migration compared to the PBS control group[1].
The Arg-Gly-Asp (RGD)-binding site recognition by HSDVHK-NH2 (P11) is site specific because the HSDVHK-NH2 (P11) is inactive for the complex formation of a denatured form of integrin–vitronectin. HSDVHK-NH2 (P11) shows a strong antagonism against avb3-GRGDSP interaction with an $IC_{50}$ value of 25.72 nM[2].
HSDVHK-NH2 (P11) inhibits the HUVEC proliferation due to the induction of HUVEC cell death through caspases activations and its mechanism is related with increased p53 expression[3].

**Cell Proliferation Assay[3]**

| | |
|---|---|
| Cell Line: | HUVEC cells. |
| Concentration: | 0.1, 1, 10, and 100 μg/mL. |
| Incubation Time: | 72 h. |
| Result: | Significantly inhibited HUVEC proliferation on denatured collagen-coated plates in a dose-dependent manner. |

## REFERENCES

[1]. Yoonsuk Lee, et al. High-throughput screening of novel peptide inhibitors of an integrin receptor from the hexapeptide library by using a protein microarray chip. J Biomol Screen. 2004 Dec;9(8):687-94.

[2]. Youngjin Choi, et al. Site-specific inhibition of integrin alpha v beta 3-vitronectin association by a ser-asp-val sequence through an Arg-Gly-Asp-binding site of the integrin. Proteomics. 2010 Jan;10(1):72-80.

[3]. Ji-Young Bang, et al. Pharmacoproteomic analysis of a novel cell-permeable peptide inhibitor of tumor-induced angiogenesis. Mol Cell Proteomics. 2011 Aug;10(8):M110.005264.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA