N-Acetyl-Ser-Asp-Lys-Pro

**Biochemical Properties**
- **Cat. No.**: HY-P0266
- **CAS No.**: 127103-11-1
- **Molecular Formula**: C_{20}H_{33}N_{5}O_{9}
- **Molecular Weight**: 487.5
- **Sequence**: Ac-Ser-Asp-Lys-Pro
- **Sequence Shortening**: Ac-SDKP
- **Target**: Angiotensin-converting Enzyme (ACE)
- **Pathway**: Metabolic Enzyme/Protease
- **Storage**: Please store the product under the recommended conditions in the COA.

**Biological Activity**

### In Vitro
N-Acetyl-Ser-Asp-Lys-Pro is degraded specifically by ACE, and its plasma level rises substantially during ACE inhibitor therapy. Flow cytometry of rat cardiac fibroblasts treated with N-Acetyl-Ser-Asp-Lys-Pro shows significant inhibition of the progression of cells from G0/G1 phase to S phase of the cell cycle. Moreover, phosphorylation and nuclear translocation of Smad2 is decreased in cardiac fibroblasts treated with N-Acetyl-Ser-Asp-Lys-Pro.[1]. N-acetyl-seryl-aspartyl-lysyl-proline appears to exert this function by blocking the action of a stem cell-specific proliferation stimulator and acts selectively on quiescent progenitors.[2]. N-Acetyl-Ser-Asp-Lys-Pro inhibits collagenase expression and activation is associated with increased expression of TIMP-1 and TIMP-2. N-Acetyl-Ser-Asp-Lys-Pro inhibits interleukin-1β-mediated increase in MMP-2 and MMP-9 activities and MMP-13 expression.[3].

### In Vivo
N-Acetyl-Ser-Asp-Lys-Pro prevents hypertension-induced inflammatory cell infiltration, collagen deposition, nephrin downregulation and albuminuria, which could lead to renoprotection in hypertensive mice.[4].

**References**


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