**Delcasertib hydrochloride**

Cat. No.: HY-106262B  
Molecular Formula: $C_{120}H_{200}ClN_{45}O_{34}S_2$  
Molecular Weight: 2916.74  
Sequence Shortening: Sequence 1: CYGRKKRRQRRR; Sequence 1': CSFNSYELGSL (Disulfide bridge: Cys1-Cys1')  
Target: PKC  
Pathway: Epigenetics; TGF-beta/Smad  
Storage: Protect from light  
Powder -80°C 2 years  
-20°C 1 year  
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

### BIOLOGICAL ACTIVITY

**Description**  
Delcasertib (KAI-9803) hydrochloride is a potent and selective δ-protein kinase C (δPKC) inhibitor. Delcasertib (KAI-9803) hydrochloride could ameliorate injury associated with ischemia and reperfusion in animal models of acute myocardial infarction (MI) \(^1\)[2].

**IC\(_{50}\) & Target**  
δPKC

**In Vitro**  
Delcasertib (KAI-9803) is composed of a selective δ-protein kinase C (δPKC) inhibitor peptide derived from the δV1-1 portion of δPKC (termed “cargo peptide”), conjugated reversibly to the cell-penetrating peptide 11-amino acid, arginine-rich sequence of the HIV type 1 transactivator protein (TAT47–57; termed “carrier peptide”) via a disulfide bond\(^1\).  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**  
Delcasertib (KAI-9803, a single intraperitoneal injection) in mice results in the selective inhibition of PKC translocation in the liver, kidney, lung, heart, and brain\(^1\).  
Delcasertib (KAI-9803) administration at the end of ischemia has been found to reduce cardiac damage caused by ischemia-reperfusion in a rat model of acute myocardial infarction\(^1\).  
Delcasertib (KAI-9803) has been studied for the prevention of reperfusion injury in patients undergoing angioplasty after acute myocardial infarction\(^2\).  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

<table>
<thead>
<tr>
<th>Animal Model:</th>
<th>Six-week-old male Crl:CD(SD) rats(^1)</th>
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<tbody>
<tr>
<td>Dosage:</td>
<td>1 mg/kg (Pharmacokinetic Analysis).</td>
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<td>Administration:</td>
<td>Via the femoral vein.</td>
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<td>Result:</td>
<td>The distribution to tissues such as the liver, kidney, and heart is facilitated by the reversible conjugation to TAT47-57.</td>
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</table>

### REFERENCES

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\(^1\) Delcasertib [1].  
\(^2\) Delcasertib [2].


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