Gap 26

Cat. No.: A1044
CAS No.: 197250-15-0
Formula: C70H107N19O19S
M.Wt.: 1550.79
Synonyms: Val-Cys-Tyr-Asp-Lys-Ser-Phe-Pro-Ile-Ser-His-Val-Arg
Target: Neuroscience
Pathway: Gap Junction
Storage: Desiccate at -20°C

Solvent & Solubility

<table>
<thead>
<tr>
<th>Solvent &amp; Concentration</th>
<th>Mass 1mg</th>
<th>Mass 5mg</th>
<th>Mass 10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>0.6448 mL</td>
<td>3.2242 mL</td>
<td>6.4483 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.1290 mL</td>
<td>0.6448 mL</td>
<td>1.2897 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.0645 mL</td>
<td>0.3224 mL</td>
<td>0.6448 mL</td>
</tr>
</tbody>
</table>

Preparation of Stock Solutions

Insoluble in EtOH; ≥155.1 mg/mL in H2O with ultrasonic; ≥77.55 mg/mL in DMSO with gentle warming and ultrasonic

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary: Gap junction blocker peptide, mapping to connexin 43 residue 63-75

IC50 & Target

Cell Viability Assay

Cell Line: ECV304 cells
Preparation Method: The solubility of this peptide in sterile water is >10 mM. Stock solution should be split and stored at -80°C for several months.
<table>
<thead>
<tr>
<th>Reacting conditions:</th>
<th>0.25mg/ml, 30 min</th>
</tr>
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<tbody>
<tr>
<td>Applications:</td>
<td>Preventing the InsP3-triggered calcium increase by ester loading the cells with the calcium chelator BAPTA reduced the InsP3-triggered ATP release back to the control level. Incubation of the cells with gap 26 completely abolished the InsP3-triggered ATP response and reduced the ATP release to below the control level, indicating that the basal ATP release is also affected.</td>
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</table>

**Animal experiment**

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>Female Sprague-Dawley rats</th>
</tr>
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<tbody>
<tr>
<td>Dosage form:</td>
<td>300 μM, 45 min</td>
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<tr>
<td>Applications:</td>
<td>The rats were prepared with closed cranial windows 24 h before the study. A 10-mm-diameter craniotomy was performed over the skull midline. The dura was removed carefully to keep the sagittal sinus intact. An 11-mm-diameter glass window outfitted with three ports was glued to the skull using cyanoacrylate. The skin overlying the window was sutured, and the animals were permitted to recover. On the day of study, three stainless steel screws were inserted into the skull, along the periphery of the cranial window, for electroencephalogram (EEG) recording. Cannulae were then connected to the three ports. The rats were subjected to one of two neuronal activation paradigms: SNS or bicuculline-induced seizure. Following the initial measurement of pial arteriolar diameter changes during SNS or during bicuculline exposure, baseline conditions were reestablished. After 20 min, a suffusion of gap-26 was initiated. Forty-five minutes later, the neural activation was repeated. Exposure to the Cx40/Cx37 inhibitory peptide, gap-26 (300 μM), was without effect on bicuculline- or SNS-induced pial arteriolar dilations.</td>
</tr>
</tbody>
</table>

**Other notes:** Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

**Product Citations**


References


Caution

FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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