

Product Specification Sheet

**Connexin Mimetic Peptides**

Cat. # Cx2707-P-1	Human/Mouse/Rat <sup>40</sup> Cx-Gap <sub>27</sub> Control Peptide	<b>SIZE:</b> 1 mg
Cat. # Cx2707-P-5	Human/Mouse/Rat <sup>40</sup> Cx-Gap <sub>27</sub> Control Peptide	<b>SIZE:</b> 5 mg
Cat. # Cx2708-PS-1	Human/Mouse/Rat <sup>40</sup> Cx -Sc-Gap <sub>27</sub> Scrambled Peptide	<b>SIZE:</b> 1 mg
Cat. # Cx2708-PS-5	Human/Mouse/Rat <sup>40</sup> Cx -Sc-Gap <sub>27</sub> Scrambled Peptide	<b>SIZE:</b> 5 mg

**Gap junctions** contain channels that allow the passage of ions and small molecules between adjacent cells. This intercellular communication has been implicated in the coordination of cellular responses to intracellular signaling molecules.

**Connexins** are a family of integral membrane proteins that oligomerize to form intercellular channels that are clustered at gap junctions. Connexins share a common transmembrane (TM) topology. Each connexin is thought to contain 4 TM domains, with two extracellular and three cytoplasmic regions.

**Connexin-mimetic peptides**, i.e. peptides that are identical with a short amino acid sequence on the Cx subunit have recently emerged as tools to block Connexin hemi-channels (CxHcs) with little or no immediate effects on gap junctions.

**<sup>40</sup>Cx-Gap<sub>27</sub>** corresponds to amino acid sequence on the second extracellular loop of Cx40. The sequence comprises conserved domain SRPTEK which interfaces with the membrane. <sup>40</sup>Cx-Gap<sub>27</sub> inhibits Cx40 gap junctions. Effects of this peptide on CxHc have not been investigated (1).

**Source of Peptide**

<b>Cat #s</b>	<ul style="list-style-type: none"> <li>• Cx2707-P-1</li> <li>• Cx2707-P-5</li> </ul>
<b>Sequence</b>	S-R-P-T-E-K-N-V-F-I-V
<b>Identity</b>	Human/Mouse/Rat <sup>40</sup> Cx-Gap <sub>27</sub> <b>Control Peptide</b>
<b>Location</b>	199 - 209 aa
<b>Purity</b>	>90%; HPLC Purified
<b>Mol. Wt.</b>	1289.50
<b>Form</b>	Lyophilized Powder
<b>Solubility</b>	Soluble in DMF

<b>Cat #</b>	<ul style="list-style-type: none"> <li>• Cx2708-PS-1</li> <li>• Cx2708-PS-5</li> </ul>
<b>Sequence</b>	I-P-F-V-E-S-K-R-T-V-N
<b>Identity</b>	Human/Mouse/Rat <sup>40</sup> Cx -Sc-Gap <sub>27</sub> <b>Scrambled Peptide</b>
<b>Location</b>	199 - 209 aa
<b>Purity</b>	>90%; HPLC Purified
<b>Mol. Wt.</b>	1289.50
<b>Form</b>	Lyophilized Powder
<b>Solubility</b>	Soluble in DMF

**Storage**

**Short-term:** unopened, undiluted liquid vials for less than a week at 4°C.

**Long-term:** Store at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw or store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder.

**Recommended Usage**

**General References:**

1) Evans HW, et al., (2006) Biochem. J. 397: 1-14.

\*This product is for In vitro research use only.

**Related material available from ADI**

Control and scrambled Peptides to mouse, rat and human Gap26, Gap27 and CxHc-32

Cx2707-08-P-1-5

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