

Product Specification Sheet

Connexin Mimetic Peptides

Cat. # Cx2703-P-1	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Control Peptide	SIZE: 1 mg
Cat. # Cx2703-P-5	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Control Peptide	SIZE: 5 mg
Cat. # Cx2704-PS-1	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Scrambled Peptide	SIZE: 1 mg
Cat. # Cx2704-PS-5	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Scrambled Peptide	SIZE: 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.

Gap 27 corresponds to amino acid sequence on the second extracellular loop of Cx43. The sequence comprises conserved domain SRPTEK which interfaces with the membrane. Gap27 inhibits gap junctional transfer of fluorescent dyes, electrical coupling and synchronized Ca²⁺ oscillations in smooth-muscle cells (1).

Source of Peptide

Cat #s	<ul style="list-style-type: none"> Cx2703-P-1 Cx2703-P-5
Sequence	S-R-P-T-E-K-T-I-F-I-I
Identity	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Control Peptide
Location	201– 211 aa
Purity	>90%; HPLC Purified
Mol. Wt.	1304.57
Form	Lyophilized Powder
Solubility	Soluble in DMF

Cat #	<ul style="list-style-type: none"> Cx2704-PS-1 Cx2704-PS-5
Sequence	R-E-K-I-I-T-S-F-I-P-T
Identity	Human/Mouse/Rat ^{37,43} Cx-Gap ₂₇ Scrambled Peptide
Location	201– 211 aa
Purity	>90%; HPLC Purified
Mol. Wt.	1304.57
Form	Lyophilized Powder
Solubility	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) Martin P E, et al., (2005) Br. J. Pharmacol. 144: 617-627.

*This product is for In vitro research use only.

Related material available from ADI

Control and scrambled Peptides to mouse, rat and human Gap26, Gap24 and CxHc-32

Cx2703-04-P-1-5

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