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## DATASHEET

Gap19

### Product overview

<b>Name</b>	Gap19
<b>Cat No</b>	HB5162
<b>Biological action</b>	Blocker
<b>Purity</b>	>95%
<b>Description</b>	Cx43 hemichannel blocker

### Biological Data

<b>Biological description</b>	Cx43 hemichannel blocker. Shows no effect on gap junction coupling or at Panx-1 channels. Reduces mitochondrial potassium influx in cardiomyocytes and reduces infarct size in a mouse ischemia model. Inhibits astroglial Cx43 hemichannels in a dose-dependent manner, without affecting gap junction channels.
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### Solubility & Handling

<b>Solubility overview</b>	Soluble in water (1 mg/ml)
<b>Storage instructions</b>	-20 °C
<b>Storage of solutions</b>	Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.
<b>Shipping Conditions</b>	Stable for <b>ambient temperature</b> shipping. Follow storage instructions on receipt.
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Molecular Weight</b>	1161.46
<b>Molecular Formula</b>	C <sub>55</sub> H <sub>96</sub> N <sub>14</sub> O <sub>13</sub>
<b>CAS Number</b>	1507930-57-5
<b>PubChem identifier</b>	91691126
<b>SMILES</b>	[H]N[C@@H](CCCCN)C(=O)N[C@@H](CCC(N)=O)C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CCC(O)=O)C(=O)N[C@@H]([C@@H](C)CC)C(=O)N[C@@H](CCCCN)C(=O)N[C@@H](CCC(N)=O)N[C@@H](CC1=CC=CC=C1)C(=O)N[C@@H](CCCCN)C(=O)O
<b>Source</b>	Synthetic
<b>InChIKey</b>	IEAKEKFIXUZWEH-PKMKMBMKSA-N

### References

#### Gap19, a Cx43 Hemichannel Inhibitor, Acts as a Gating Modifier That Decreases Main State Opening While Increasing Substate Gating.

Lissoni A et al (2020) International journal of molecular sciences 21

**PubMedID** [33027889](https://pubmed.ncbi.nlm.nih.gov/33027889/)

**The connexin43 mimetic peptide Gap19 inhibits hemichannels without altering gap junctional communication in astrocytes.**

Abudara V et al (2014) Frontiers in cellular neuroscience 8

**PubMedID** [25374505](#)

**Selective inhibition of Cx43 hemichannels by Gap19 and its impact on myocardial ischemia/reperfusion injury.**

Wang N et al (2013) Basic research in cardiology 108

**PubMedID** [23184389](#)

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