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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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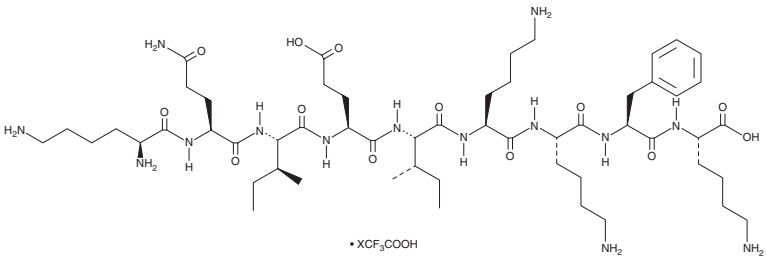
PRODUCT INFORMATION

Gap19 (trifluoroacetate salt)

Item No. 32743

Formal Name:	L-lysyl-L-glutaminyl-L-isoleucyl-L-α-glutamyl-L-isoleucyl-L-lysyl-L-lysyl-L-phenylalanyl-L-lysine, trifluoroacetate salt
Synonym:	KQIEIKKFK
MF:	$C_{55}H_{96}N_{14}O_{13} \bullet XCF_3COOH$
FW:	1,161.4
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Gap19 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Gap19 (trifluoroacetate salt) in water. The solubility of Gap19 (trifluoroacetate salt) in water is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Gap19 is a nonapeptide derivative of connexin43 (Cx43) and an inhibitor of Cx43 hemichannels.[1,2] It suppresses the membrane charge transfer (Q_m) in HeLa cells expressing Cx43 (IC_{50} = ~6.5 µM), as well as Cx43 hemichannel currents in isolated guinea pig cardiomyocytes when used at a concentration of 100 µM.[1] Gap19 inhibits glutamate-induced ATP release, a marker of Cx43 hemichannel activity, in primary mouse astrocytes.[2] *In vivo*, Gap19 (300 µg/kg, i.c.v.) decreases cortical neuronal loss, infarct volume, and the number of errors in a foot fault test in a mouse model of cerebral ischemia and reperfusion injury induced by middle cerebral artery occlusion (MCAO).[3] It also reduces infarct size in a mouse model of myocardial ischemia and reperfusion injury induced by ligation of the left anterior descending (LAD) artery when administered at a dose of 25 mg/kg.[1]

References

1. Wang, N., De Vuyst, E., Ponsaerts, R., *et al.* Selective inhibition of Cx43 hemichannels by Gap19 and its impact on myocardial ischemia/reperfusion injury. *Basic Res. Cardiol.* **108(1)**, 309 (2013).
2. Abudara, V., Bechberger, J., Freitas-Andrade, M., *et al.* The connexin43 mimetic peptide Gap19 inhibits hemichannels without altering gap junctional communication in astrocytes. *Front. Cell Neurosci.* **8**, 306 (2014).
3. Chen, B., Yang, L., Chen, J., *et al.* Inhibition of Connexin43 hemichannels with Gap19 protects cerebral ischemia/reperfusion injury via the JAK2/STAT3 pathway in mice. *Brain Res. Bull.* **146**, 124-135 (2019).

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