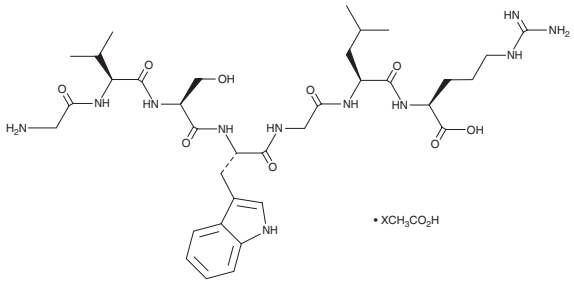
PRODUCT INFORMATION

PE 22-28 (acetate)

Item No. 39986

Formal Name:	glycyl-L-valyl-L-seryl-L-tryptophylglycyl-L-leucyl-L-arginine, acetate
Synonym:	Gly-Val-Ser-Trp-Gly-Leu-Arg-OH
Peptide Sequence:	GVSWGLR-OH
MF:	$C_{35}H_{55}N_{11}O_9 \bullet XC_2H_4O_2$
FW:	773.9
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

PE 22-28 (acetate) is supplied as a solid. A stock solution may be made by dissolving the PE 22-28 (acetate) in the solvent of choice, which should be purged with an inert gas. PE 22-28 (acetate) is soluble in methanol and acetonitrile.

Description

PE 22-28 is a peptide inhibitor of the two-pore domain potassium channel K_{2P}2.1/TREK1 (IC_{50} = 0.1 nM in HEK293 cells expressing the human channel) and a fragment of spadin (Item No. 36762).[1] It is selective for K_{2P}2.1/TREK1 over K_{2P}10.1 /TREK2, K_{2P}13.1/TRAAK, K_{2P}18.1/TRESK, and K_{2P}3.1/TASK1 in HEK293 cells expressing the human channels at 100 nM. PE 22-28 (4 µg/kg for four days) increases neurogenesis and the levels of postsynaptic density protein 95 (Psd-95), a measure of increased synaptogenesis, in isolated mouse hippocampi. It decreases immobility in the forced swim test, latency to feed in the novelty-suppressed feeding test, and the time to escape in the Porsolt learned helplessness test in mice when administered at a dose of 0.3 µg/kg for four days.

Reference

1. Djillani, A., Pietri, M., Moreno, S., *et al.* Shortened spadin analogs display better TREK-1 inhibition, *in vivo* stability and antidepressant activity. *Front. Pharmacol.* **8:643**, (2017).

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