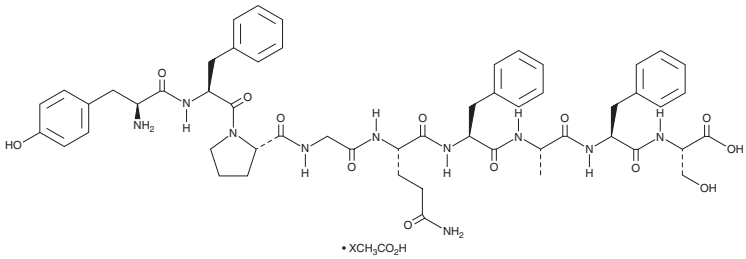
PRODUCT INFORMATION

Chemerin-9 (human) (acetate)

Item No. 36760

Formal Name:	L-tyrosyl-L-phenylalanyl-L-prolylglycyl-L-glutaminyl-L-phenylalanyl-L-alanyl-L-phenylalanyl-L-serine, acetate
Synonyms:	Chemerin (149-157), YFPGQFAFS
MF:	$C_{54}H_{66}N_{10}O_{13} \bullet XC_2H_4O_2$
FW:	1063.2
Purity:	≥95%
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

Chemerin-9 (human) (acetate) is supplied as a solid. A stock solution may be made by dissolving the chemerin-9 (human) (acetate) in the solvent of choice, which should be purged with an inert gas. Chemerin-9 (human) (acetate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of chemerin-9 (human) (acetate) in these solvents is approximately 12 and 16 mg/ml, respectively. Chemerin-9 (human) (acetate) is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of chemerin-9 (human) (acetate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of chemerin-9 (human) (acetate) in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Chemerin-9 is a peptide agonist of chemokine-like receptor 1 (CMKLR1) and CMKLR2, also known as chemerin receptor 1 (chemerin$_1$) and chemerin$_2$, respectively.[1] It is composed of nine C-terminal amino acids of the endogenous human protein chemerin, a chemotactic protein and adipokine involved in the early immune response and energy homeostasis.[2] Chemerin-9 binds to CMKLR1 and CMKLR2 (IC_{50}s = 1.9 and 2.3 nM, respectively, in a radioligand binding assay) and induces calcium mobilization in HEK293T cells expressing either CMKLR1 or CMKLR2 and the G protein $G_{\alpha 15}$ when used at a concentration of 1 µM.[3]

References

1. Wittamer, V., Grégoire, F., Robberecht, P., *et al.* The C-terminal nonapeptide of mature chemerin activates the chemerin receptor with low nanomolar potency. *J. Biol. Chem.* **279(11)**, 9956-9962 (2004).
2. Fischer, T.F. and Beck-Sickinger, A.G. Chemerin - exploring a versatile adipokine. *Biol. Chem.* **403(7)**, 625-642 (2022).
3. Barnea, G., Strapps, W., Herrada, G., *et al.* The genetic design of signaling cascades to record receptor activation. *Proc. Natl. Acad. Sci. USA* **105(1)**, 64-69 (2008).

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