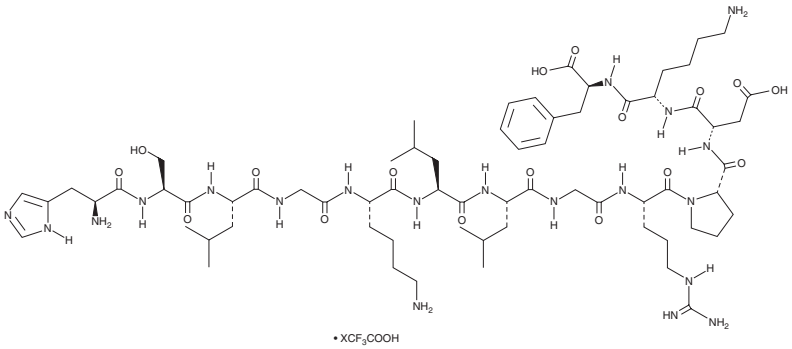
PRODUCT INFORMATION

[Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt)

Item No. 36895

Formal Name:	L-histidyl-L-seryl-L-leucylglycyl-L-lysyl-L-leucyl-L-leucylglycyl-L-arginyl-L-prolyl-L-α-aspartyl-L-lysyl-L-phenylalanine, trifluoroacetate salt
Synonyms:	H-His-Ser-Leu-Gly-Lys-Leu-Leu-Gly-Arg-Pro-Asp-Lys-Phe-OH, [Leu^{144}, Arg^{147}] Proteolipid Peptide (139-151)
Peptide Sequence:	HSLGKLLGRPDKF-OH
MF:	$C_{67}H_{110}N_{20}O_{17} \bullet XCF_3COOH$
FW:	1,467.7
Purity:	≥98%
Supplied as:	A crystalline 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

[Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the [Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt in the solvent of choice, which should be purged with an inert gas. [Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of [Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt) in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

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 [Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of [Leu^{144}, Arg^{147}]-PLP (139-151) (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

[Leu^{144},Arg^{147}]-PLP (139-151) is a mutant peptide fragment of myelin proteolipid protein (PLP) containing tryptophan-to-leucine and histidine-to-arginine substitutions at positions 144 and 147, respectively.[1] Immunization with [Leu^{144}, Arg^{147}]-PLP (139-151) (50 µg) emulsified in complete Freund's adjuvant (CFA) increases spleen levels of IL-4 in mice. It inhibits Th1 cell activation *in vitro* but not *in vivo*, where it induces the generation of regulatory T cells.[2] Preimmunization with [Leu^{144}, Arg^{147}]-PLP (139-151) delays the onset of experimental autoimmune encephalomyelitis (EAE) induced by the encephalitogenic peptides PLP (178-191), myelin oligodendrocyte protein (MOG) (92-106), or myelin basic protein (MBP) in mice.

References

1. Katsara, M., Deraos, S., Tselios, T.V., *et al. Immunotherapy* **6(6),** 709-724 (2014).
2. Nicholson, L.B., Murtaza, A., Hafler, B.P., *et al. Proc. Natl. Acad. Sci. USA* **94(17),** 9279-9284 (1997).

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