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## Product Data Sheet

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Product Name: Tuftsin diacetate

Cat. No.: GC33904

### Chemical Properties

Cas. No. 72103-53-8

SMILES Thr-Lys-Pro-Arg

Formula C<sub>25</sub>H<sub>48</sub>N<sub>8</sub>O<sub>10</sub> M.Wt 620.7

Solubility Soluble in Water Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

Tuftsin diacetate, a tetrapeptide, is a macrophage/microglial activator.

Tuftsin is a tetrapeptide, Thr-Lys-Pro-Arg, which resides in the Fc-domain of the heavy chain of immunoglobulin G. Tuftsin possesses a broad spectrum of activities related primarily to the immune system function and exerts on phagocytic cells, notably on macrophages. Tuftsin's capacity to augment cellular activation is mediated by specific receptors that are identified, characterized, and recently isolated from rabbit peritoneal granulocytes[1]. Tuftsin, a macrophage/microglial activator, dramatically improves the clinical course of experimental autoimmune encephalomyelitis (EAE), a well-established animal model for MS. Tuftsin administration correlates with upregulation of the immunosuppressive Helper-2 Tcell (Th2) cytokine transcription factor GATA-3. Tuftsin promotes phagocytic activity for cells of monocytic origin, such as neutrophils, macrophages and microglia, all of which are thought to express Tuftsin receptors[2].

[1]. Fridkin M, et al. Tuftsin: its chemistry, biology, and clinical potential. Crit Rev Biochem Mol Biol. 1989;24(1):1-40. [2]. Wu M, et al. Tuftsin promotes an anti-inflammatory switch and attenuates symptoms in experimental autoimmune

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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encephalomyelitis. PLoS One. 2012;7(4):e34933.

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