

# **Product** Data Sheet

### **KRFK TFA**

Cat. No.: HY-P3970A

 $\begin{tabular}{ll} \begin{tabular}{ll} Molecular Formula: & $C_{27}H_{47}N_9O_5.xC_2HF_3O_2$ \\ \begin{tabular}{ll} Sequence: & Lys-Arg-Phe-Lys \\ \end{tabular}$ 

Sequence Shortening: KRFK

Target:TGF-β ReceptorPathway:TGF-beta/Smad

Storage: -20°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

#### **SOLVENT & SOLUBILITY**

In Vitro DMSO : ≥ 100 mg/mL

\* "≥" means soluble, but saturation unknown.

## **BIOLOGICAL ACTIVITY**

Description	KRFK TFA, a peptide derived from TSP-1, can activate TGF- $\beta$ . KRFK TFA promotes TGF- $\beta$ -mediated signaling and its downstream role, independent of thrombospondin (TSP) receptors such as CD47 and CD36. KRFK TFA can be used for chronic ocular surface inflammatory disorders reseach <sup>[1]</sup> .
IC <sub>50</sub> & Target	TGF- $eta^{[1]}$
In Vitro	KRFK TFA (50 $\mu$ M; 24 h) activates the secretion of TGF- $\beta$ and reduces the expression of DC maturation markers in tsp-1 deficient bone marrow-derived dendritic cells (BMDCs) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	KRFK TFA (5 $\mu$ g/5 $\mu$ L/eyes; single dose) significantly prevents the development of chronic ocular surface inflammation in TSP-1 <sup>-/-</sup> mice <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

[1]. Soriano-Romaní L, et al. Topical Application of TGF- $\beta$ -Activating Peptide, KRFK, Prevents Inflammatory Manifestations in the TSP-1-Deficient Mouse Model of Chronic Ocular Inflammation. Int J Mol Sci. 2018 Dec 20;20(1):9.

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

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