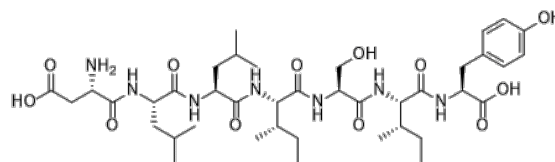


Product Name : UMR2-705
Cat. No. : PC-26134
CAS No. :
Molecular Formula : C₄₀H₆₅N₇O₁₂
Molecular Weight : 836.00
Target : TNF Receptor
Solubility : 10 mM in DMSO



Biological Activity

UMR2-705 is a novel Tumor Necrosis Factor Receptor 2 (**TNFR2**) agonist peptide, promotes Tregs expansion without affecting CD8⁺ T cells or conventional effector T cells (Teffs), acting through TNFR2 signaling.

UMR2-705 induces dose-dependent expansion of Tregs in murine CD4⁺ T cells and human PBMCs. selectively promotes Treg expansion through TNFR2 signaling.

UMR2-705 (25 mg/kg/day x 3 days) increases the proportion of Tregs in the spleen and lymph nodes in Balb/c mice.

UMR2-705 mitigates LPS-induced systemic inflammation and cytokine production, promotes dendritic cell accumulation in vivo and enhances their capacity to expand regulatory T cells in vitro.

UMR2-705 activates inflammation-associated signaling pathways, increases expression of multiple members of the TNF receptor superfamily, including Tnfrsf10b (TRAILR2), Tnfrsf9 (4-1BB), Tnfrsf18 (GITR), Tnfrsf1b (TNFR2), and Tnfrsf4 (OX40), on CD4⁺ T cells.

References

Ping Liao, et al. *Front Immunol.* 2025 Nov 26:16:1696587.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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