

## DiaPep277

|                             |   |                          |
|-----------------------------|---|--------------------------|
| <b>Cat. No.:</b>            | HY-105063   |                          |
| <b>CAS No.:</b>             | 179822-83-4   |                          |
| <b>Molecular Formula:</b>   | $C_{106}H_{180}N_{28}O_{34}$  |                          |
| <b>Molecular Weight:</b>    | 2391  | VLGGGVALLRVIPALDSLTPANED |
| <b>Sequence Shortening:</b> | VLGGGVALLRVIPALDSLTPANED  |                          |
| <b>Target:</b>              | Others  |                          |
| <b>Pathway:</b>             | Others  |                          |
| <b>Storage:</b>             | Sealed storage, away from moisture and light  |                          |
|                             | Powder    -80°C    2 years  |                          |
|                             | -20°C    1 year   |                          |
|                             | * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |                          |

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 12.5 mg/mL (5.23 mM; Need ultrasonic)

| Solvent | Mass Concentration | 1 mg      | 5 mg      | 10 mg     |
|---------|--------------------|-----------|-----------|-----------|
|         |                    | 1 mM      | 0.4182 mL | 2.0912 mL |
|         | 5 mM               | 0.0836 mL | 0.4182 mL | 0.8365 mL |
|         | 10 mM              | ---       | ---       | ---       |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

DiaPep277 is a 24 amino acid peptide derived from positions 437-460 in HSP60. DiaPep277 arrests the progression of  $\beta$ -cell destruction in NOD mice. DiaPep277 has an immune modulatory effect on diabetogenic T cells in animal models of diabetes [1][2].

#### In Vivo

DiaPep277 (50  $\mu$ g; i.p.; single dosage) causes strong splenic T cells responses, and strong diabetogenic clones 27, C7, and C9 responses[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model: Female NOD mice (diabetes model)[2]

Dosage: 50  $\mu$ g

|                 |   |
|-----------------|---|
| Administration: | i.p.; single dosage   |
| Result:         | Caused strong splenic T cells responses, and strong diabetogenic clones 27, C7, and C9 responses. |

## REFERENCES

- [1]. Eldor R, et al. Immune modulation in type 1 diabetes mellitus using DiaPep277: a short review and update of recent clinical trial results. *Diabetes Metab Res Rev.* 2009 May;25(4):316-20.
- [2]. Elias D, et al. Vaccination against autoimmune mouse diabetes with a T-cell epitope of the human 65-kDa heat shock protein. *Proc Natl Acad Sci U S A.* 1991 Apr 15;88(8):3088-91.

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

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