

# **Certificate of Analysis**

Print Date: Jul 20th 2021

www.tocris.com

**Product Name:** Lei-Dab 7 Catalog No.: 5571 Batch No.: 4

CAS Number: 1061556-49-7

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{141}H_{236}N_{46}O_{39}S_6$ 

**Batch Molecular Weight:** 3392.06

**Physical Appearance:** 

TFA Counter Ion:

Soluble to 1 mg/ml in water Solubility:

Storage: Store at -20°C

**Peptide Sequence:** Ala-Phe-Cys-Asn-Leu-Arg-Dab-Cys-Gln-Leu-

Ser-Cys-Arg-Ser-Leu-Gly-Leu-Leu-Gly-Lys-

Cys-Ile-Gly-Asp-Lys-Cys-Glu-Cys-Val-Lys-

His-NH<sub>2</sub>

Tel: +44 (0)1235 529449 www.tocris.com/distributors Tel:+1 612 379 2956



## **Product Information**

Print Date: Jul 20th 2021

www.tocris.com

Product Name: Lei-Dab 7 Catalog No.: 5571 Batch No.: 4

CAS Number: 1061556-49-7

## **Description:**

Lei-Dab 7 is a high affinity, selective  $K_{\text{Ca}}2.2$  (SK2) channel blocker ( $K_{\text{d}}$  = 3.8 nM). Exhibits >200-fold selectivity for  $K_{\text{Ca}}2.2$  over  $K_{\text{Ca}}2.1$ ,  $K_{\text{Ca}}2.3$ ,  $K_{\text{Ca}}3.1$ , IK,  $K_{\text{v}}$  and  $K_{\text{ir}}2.1$ . Increases thetaburst responses and increases LTP in rat hippocampal slices in vitro. Convulsive in vivo.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>141</sub>H<sub>236</sub>N<sub>46</sub>O<sub>39</sub>S<sub>6</sub> Batch Molecular Weight: 3392.06

Physical Appearance:

#### **Peptide Sequence:**

Ala-Phe-Cys-Asn-Leu-Arg-Dab-Cys-Gln-Leu-Ser-Cys-Arg-Ser-Leu-Gly-Leu-Leu-Gly-Lys-Cys-Ile-Gly-Asp-Lys-Cys-Glu-Cys-Val-Lys-His-NH<sub>2</sub>

**Storage:** Store at -20°C

## Solubility & Usage Info:

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Counter Ion: TFA

## Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such Cys, Met,Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2  $\mu$ m filter to remove potential bacterial contamination whenever possible.

#### References:

**Kasumu** et al (2012) Selective positive modulator of calcium-activated potassium channels exerts beneficial effects in a mouse model of spinocerebellar ataxia type 2. Chem.Biol. **19** 1340. PMID: 23102227.

**Kramar** *et al* (2004) A novel mechanism for the facilitation of theta-induced long-term potentiation by brain-derived neurotrophic factor. J.Neurosci. **24** 5151. PMID: 15175384.

**Shakkottai** *et al* (2001) Design and characterization of a highly selective peptide inhibitor of the small conductance calcium-activated K+ channel, Sk<sub>Ca</sub>2. J.Biol.Chem. **276** 43145. PMID: 11527975.