

# Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** Scrambled <sup>10</sup>Panx

**Catalog No.:** 3708

**Batch No.:** 6

**CAS Number:** 1315378-72-3

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>58</sub> H <sub>79</sub> N <sub>15</sub> O <sub>16</sub>
<b>Batch Molecular Weight:</b>	1242.37
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	84%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 0.50 mg/ml in water
<b>Storage:</b>	Store at -20°C
<b>Peptide Sequence:</b>	Phe-Ser-Val-Tyr-Trp-Ala-Gln-Ala-Asp-Arg

## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 97.6% purity
<b>Mass Spectrum:</b>	Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	1.88	Lys		
Arg	1.00	1.01	Met		
Asx	1.00	1.00	Phe	1.00	1.03
Cys			Pro		
Glx	1.00	1.01	Ser	1.00	1.02
Gly			Thr		
His			Trp		
Ile			Tyr	1.00	0.99
Leu			Val	1.00	0.96

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956

**Product Name:** Scrambled <sup>10</sup>Panx

**Catalog No.:** 3708

**6**

CAS Number: 1315378-72-3

**Description:**

Scrambled <sup>10</sup>Panx is a scrambled version of <sup>10</sup>Panx (Cat. No. 3348), a Panx-1 mimetic inhibitory peptide that blocks pannexin-1 gap junctions, inhibits P2X<sub>7</sub>-mediated dye uptake, ATP-mediated IL-1 $\beta$  release and caspase-1 activation without altering membrane current in macrophages in vitro. <sup>10</sup>Panx also blocks activation of NMDA receptor secondary currents (*I*<sub>2nd</sub>) by > 70%.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>58</sub>H<sub>79</sub>N<sub>15</sub>O<sub>16</sub>

Batch Molecular Weight: 1242.37

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Phe-Ser-Val-Tyr-Trp-Ala-Gln-Ala-Asp-Arg

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 0.50 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.

**Net Peptide Content:** 84% (Remaining weight made up of counterions and residual water).

**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 as 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:**

**Thompson *et al*** (2008) Activation of pannexin-1 hemichannels augments aberrant bursting in the hippocampus. *Science* **322** 1555. PMID: 19056988.

**Wang *et al*** (2007) Modulation of membrane channel currents by gap junction protein mimetic peptides: size matters. *Am.J.Physiol.Cell Physiol.* **293** C1112. PMID: 17652431.

**Pelegriin and Surprenant** (2006) Pannexin-1 mediates large pore formation and interleukin-1 $\beta$  release by the ATP-gated P2X<sub>7</sub> receptor. *EMBO J.* **25** 5071. PMID: 17036048.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956