

## Certificate of Analysis

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

**Product Name:** MOG (35-55)

**Catalog No.:** 2568

**Batch No.:** 10

CAS Number: 149635-73-4

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>118</sub> H <sub>177</sub> N <sub>35</sub> O <sub>29</sub> S
<b>Batch Molecular Weight:</b>	2581.97
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	74.4%
<b>Counter Ion:</b>	TFA
<b>Solubility:</b>	Soluble to 0.50 mg/ml in water
<b>Storage:</b>	Desiccate at -20°C
<b>Peptide Sequence:</b>	Met-Glu-Val-Gly-Trp-Tyr-Arg-Ser-Pro-Phe-Ser-Arg-Val-Val-His-Leu-Tyr-Arg-Asn-Gly-Lys

### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 95.3% purity
<b>Mass Spectrum:</b>	Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala			Lys	1.00	0.98
Arg	3.00	2.96	Met	1.00	1.01
Asx	1.00	1.03	Phe	1.00	1.01
Cys			Pro	1.00	1.03
Glx	1.00	1.02	Ser	2.00	1.48
Gly	2.00	2.00	Thr		
His	1.00	0.95	Trp	1.00	0.42
Ile			Tyr	2.00	1.94
Leu	1.00	1.01	Val	3.00	2.64

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:** MOG (35-55)

**Catalog No.:** 2568

**Batch No.:** 10

CAS Number: 149635-73-4

**Description:**

MOG (35-55) or myelin oligodendrocyte glycoprotein (MOG) 35-55 is a minor component of CNS myelin. MOG (35-55) produces a relapsing-remitting neurological disease with extensive plaque-like demyelination, common to the manifestations of multiple sclerosis. MOG (35-55) induces strong T and B cell responses and is highly encephalitogenic. MOG (35-55) induces T cell-mediated multiple sclerosis in animal models. When co-administered with ITE, MOG (35-55) induces tolerogenic dendritic cells and suppresses disease development in mouse preclinical models of multiple sclerosis.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>118</sub>H<sub>177</sub>N<sub>35</sub>O<sub>29</sub>S

Batch Molecular Weight: 2581.97

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Met-Glu-Val-Gly-Trp-Tyr-Arg-Ser-Pro-Phe-Ser-Arg-Val-Val-His-Leu-Tyr-Arg-Asn-Gly-Lys

**Storage:** Desiccate at -20°C. This product is packaged under an inert atmosphere.

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**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:** 74.4% (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 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Kenison *et al*** (2020) Tolerogenic nanoparticles suppress central nervous system inflammation. *Proc.Natl.Acad.Sci.U.S.A.* **117** 32017. PMID: 33239445 .

**Miyamura *et al*** (2019) Myelin oligodendrocyte glycoprotein 35-55 (MOG 35-55)-induced experimental autoimmune encephalomyelitis: a model of chronic multiple sclerosis. *Bio.Protoc.* **9** e3453. PMID: 33654948.

**Zhang *et al*** (2004) T cell and antibody responses in relapsing-remitting experimental autoimmune encephalomyelitis in (C57BL/6xSJL) F1 mice. *J.Neuroimmunol.* **148** 1. PMID: 14975581.

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