

## Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA

<b>Cat. No.:</b>	HY-P1240A
<b>Molecular Formula:</b>	C <sub>120</sub> H <sub>178</sub> F <sub>3</sub> N <sub>35</sub> O <sub>31</sub> S
<b>Molecular Weight:</b>	2695.97
<b>Sequence:</b>	Met-Glu-Val-Gly-Trp-Tyr-Arg-Ser-Pro-Phe-Ser-Arg-Val-Val-His-Leu-Tyr-Arg-Asn-Gly-Lys MEVGWYRSPFSRVVHLYRNGK (TFA salt)
<b>Sequence Shortening:</b>	MEVGWYRSPFSRVVHLYRNGK
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Sealed storage, away from moisture and light, under nitrogen 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, under nitrogen)

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : ≥ 50 mg/mL (18.55 mM) * "≥" means soluble, but saturation unknown.																													
	<table border="1"> <thead> <tr> <th rowspan="2">Preparing Stock Solutions</th> <th>Solvent</th> <th>Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> <tr> <th colspan="2">Concentration</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>1 mM</td> <td></td> <td>0.3709 mL</td> <td>1.8546 mL</td> <td>3.7092 mL</td> </tr> <tr> <td></td> <td>5 mM</td> <td></td> <td>0.0742 mL</td> <td>0.3709 mL</td> <td>0.7418 mL</td> </tr> <tr> <td></td> <td>10 mM</td> <td></td> <td>0.0371 mL</td> <td>0.1855 mL</td> <td>0.3709 mL</td> </tr> </tbody> </table>	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg	Concentration						1 mM		0.3709 mL	1.8546 mL	3.7092 mL		5 mM		0.0742 mL	0.3709 mL	0.7418 mL		10 mM		0.0371 mL	0.1855 mL	0.3709 mL
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Please refer to the solubility information to select the appropriate solvent.																														
<b>In Vivo</b>	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (37.09 mM); Clear solution; Need ultrasonic																													

### BIOLOGICAL ACTIVITY

<b>Description</b>	Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat (MOG (35-55)) TFA is a minor component of CNS myelin. Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA has encephalitogenic activity and induces T cell proliferative. Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA induces Th1 cytokine response as well as relatively high levels of IgG antibodies. Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA produces a relapsing-remitting neurological disease with extensive plaque-like demyelination <sup>[1][2][3]</sup> .
<b>In Vitro</b>	Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat (MOG (35-55)); 0-50 µg/mL; 72 h; lymph nodes cells) TFA induces T cell proliferative and secretes Th1 cytokines including IFN-γ, TNF-α, IL-10, IL-4 and IL-5. Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA increases the level of IgG <sup>[1]</sup> .

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

#### In Vivo

Myelin Oligodendrocyte Glycoprotein Peptide (35-55), mouse, rat TFA can be used in animal modeling to construct mouse encephalomyelitis model.

Myelin Oligodendrocyte Glycoprotein Peptide (35-55) TFA (MOG (35-55); 200 µg (0.2 mL); i.p.; once, for 38 d) has encephalitogenic activity in HLA-DR2 (DRB1\*1501) mice<sup>[1]</sup>.

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Animal Model:	HLA-DR2 (DRB1*1501) mice <sup>[1]</sup>
Dosage:	200 µg (0.2 mL)
Administration:	Intraperitoneal injection; once, for 38 days
Result:	Resulted in paralysis of both hind and forelimbs.

## CUSTOMER VALIDATION

- Cell Death Dis. 2022 Sep 2;13(9):759.
- Acta Physiol. 2023 Apr 25.
- Int Immunopharmacol. 2022 Jan 29;105:108566.
- Research Square Print. September 28th, 2022.

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## REFERENCES

[1]. Rich C, et, al. Myelin oligodendrocyte glycoprotein-35-55 peptide induces severe chronic experimental autoimmune encephalomyelitis in HLA-DR2-transgenic mice. Eur J Immunol. 2004 May;34(5):1251-61.

[2]. Slavin A, et, al. Induction of a multiple sclerosis-like disease in mice with an immunodominant epitope of myelin oligodendrocyte glycoprotein. Autoimmunity. 1998;28(2):109-20.

[3]. Giralt M, et, al. Active Induction of Experimental Autoimmune Encephalomyelitis (EAE) with MOG35-55 in the Mouse. Methods Mol Biol. 2018;1791:227-232.

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

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