

## Petosemtamab

Cat. No.:	HY-P99406
CAS No.:	2213450-26-9
Target:	EGFR
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Petosemtamab (MCLA 158) is an anti- EGFR ( $K_d$ : 0.22 nM) and anti-LGR5 ( $K_d$ : 0.86 nM) monoclonal antibody (mAb). Petosemtamab leads to EGFR signaling blockade and receptor degradation in LGR5+ cancer cells. Petosemtamab can be used in the research of solid tumors, such as head and neck squamous cell carcinoma (HNSCC), metastatic colorectal cancer (CRC) <sup>[1][2]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	EGFR 0.22 nM (Kd)	LGR5 0.85 nM (Kd)
<b>In Vitro</b>	MCLA-158 (1 µg/mL, 24 or 72 h) leads to EGFR degradation in EGFR+/LGR5+ colorectal cancer organoids <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis <sup>[2]</sup>	
	Cell Line:	P18T (KRAS WT), C55T (KRAS G12V) and C82N (normal) organoids
	Concentration:	1 µg/mL
	Incubation Time:	1, 6, 24, 72 h
	Result:	Time-dependently degraded EGFR.
<b>In Vivo</b>	MCLA-158 (25 mg/kg/week, i.v., for 6 weeks) leads to tumor regression in esophageal squamous, gastric adenocarcinoma and head & neck PDX models <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Esophageal squamous, gastric adenocarcinoma and head & neck PDX models <sup>[2]</sup>
	Dosage:	25 mg/kg/week
	Administration:	Intravenous injection (i.v.) for 6 weeks.
	Result:	Inhibited tumor growth.

---

## REFERENCES

---

[1]. Antoine Hollebecque, et al. Abstract P185: Preliminary antitumor activity of MCLA-158, an IgG1 bispecific antibody targeting EGFR and LGR5, in advanced head and neck squamous cell carcinoma. *Mol Cancer Ther* (2021) 20 (12\_Supplement): P185.

[2]. Guillem Argiles, et al. Phase I dose-escalation study of MCLA-158, a first-in-class bispecific antibody targeting EGFR and LGR5, in metastatic colorectal cancer (CRC). *Journal of Clinical Oncology* 39, no. 3\_suppl

---

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA