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Anti-EGFR×LGR5 hIgG1 Bispecific Antibody (petosemtamab)

Product information

GM-88121AB-10	10 μg
GM-88121AB-100	100 μg
GM-88121AB-1000	1 mg

Antibody Information

Species Reactivity	Human
Clone	petosemtamab
Source/Isotype	Human IgG1(K214R,L351D,D356E,L358M,L368E,delta447K), Kappa
Application	Bioactivity-ELISA; Flow Cytometry
Target	Detects EGFR&LGR5
Gene	EGFR&LGR5
Other Names	EGFR:ERBB, ERBB1, ERRP, HER1, NISBD2, NNCIS, PIG61, mENA LGR5:FEX, GPR49, GPR67, GRP49, HG38
Gene ID	EGFR: 1956 (Human) LGR5: 8549 (Human)
Background	Petosemtamab (MCLA-158) is an EGFR/LGR5 bispecific monoclonal antibody drug with a research background derived from the unmet need that exists in the treatment of solid tumors such as head and neck squamous-cell carcinoma (HNSCC) . EGFR, as a key driver of tumor growth, is overexpressed in HNSCC, while LGR5, as a cancer stem cell marker, is closely related to tumor recurrence and metastasis. Traditional single-targeted drugs can not simultaneously block EGFR signaling and eliminate LGR5 + cancer stem cells, resulting in limited efficacy and drug resistance. PETOSEMTAMAB, developed through the Biclonics dual antibody platform, has a triple mechanism of action: direct blockade of the EGFR signaling pathway, induction of LGR5-mediated endocytic degradation of EGFR, and enhancement of antibody-dependent cytotoxicity (ADCC) and phagocytosis (ADCP) , which may be beneficial for the development of anti-EGFR drugs, thus, multi-dimensional inhibition of tumor growth and metastasis is achieved. Preclinical studies have shown that the drug significantly inhibits tumor growth and does not interfere with the function of healthy stem cells in models of head and neck cancer and colorectal cancer.
Storage	Store at 2-8℃ short term (1-2 weeks).Store at ≤ -20℃ long term. Avoid repeated freeze-thaw.

Version:3.1

Formulation	Phosphate-buffered solution, pH 7.2-7.4.
Endotoxin	< 1 EU/mg, determined by LAL gel clotting assay

Data Examples

Bioactivity-ELISA

Human EGFR Protein; His Tag (Catalog # GM-87561RP) was immobilized at 1 μg/ml (100 μL/well)). Increasing concentrations of Anti-EGFR×LGR5 hIgG1 Bispecific Antibody (petosemtamab) (Catalog # GM-88121AB) were added.

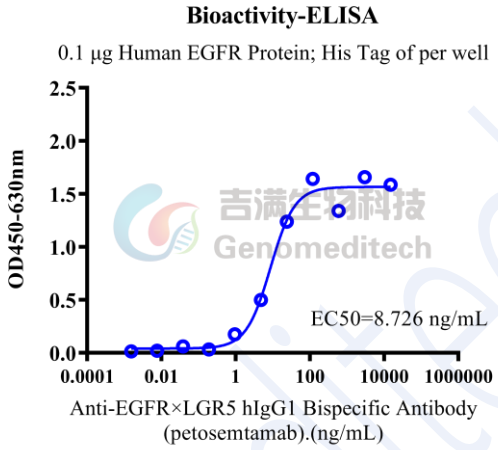
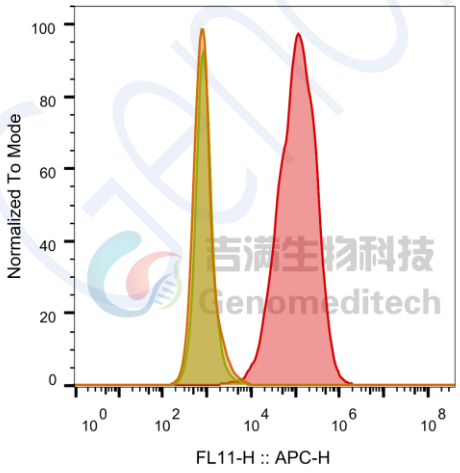


Fig. ELISA

Flow cytometry

H_LGR5 CHO-K1 Cell Line (Catalog # GM-C22690) was stained with Anti-EGFR×LGR5 hIgG1 Bispecific Antibody (petosemtamab) (Catalog # GM-88121AB) or isotype control antibody, followed by anti-Human IgG APC-conjugated Secondary Antibody.



	SampleID	Geometric Mean : FL11-H
	CHO-K1 anti-LGR5+APC-2nd Ab	851
	CHO-K1 H_LGR5 H_IgG+APC-2nd Ab	894
	CHO-K1 H_LGR5 anti-LGR5+APC-2nd Ab	104392

Fig. FACS