

Margetuximab

Cat. No.:	HY-P99030
CAS No.:	1350624-75-7
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

Description	Margetuximab (MGAH22) is a chimeric anti-HER2 monoclonal antibody optimized Fc domain, with an EC ₅₀ value of 39.33 ng/mL. Margetuximab can be used for researching metastatic HER2-positive breast cancer ^[1] .			
IC ₅₀ & Target	EC ₅₀ : 39.33 ng/mL (HER2) ^[1]			
In Vitro	Margetuximab (MGAH22) enhances the antibody-dependent cell-mediated cytotoxicity activity of effector cells expressing the CD16A-158F variant ^[1] .			
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
	Cell Proliferation Assay			
	Cell Line:	JIMT-1, MCF-7, ZR-75-1, SKBR-3, HT-29, SW750 and N87 ^[1]		
	Concentration:	0.001-1000 ng/mL		
	Incubation Time:	6 days		
In Vivo	Result:	Enhances the antibody-dependent cell-mediated cytotoxicity activity of effector cells expressing the CD16A-158F variant.		
	Margetuximab (2-4 mg/kg; IP 5 or 6 times at weekly) can firstly and significantly reduces the tumor size at day 30 - 37 in mice model ^[1] .			
	Margetuximab (15-150 mg/kg; IV; 6 weekly) exhibits well tolerated in cynomolgus monkeys, decreases NK cells by an average of 51%, and induces IL-6 release ^[1] .			
	Margetuximab (50 mg/kg; IV; single dosage) exhibits favorable safety profile ^[1] .			
	Pharmacokinetic Parameters of Margetuximab in cynomolgus monkeys ^[1] .			
		Male, IV (50 mg/kg)	Female, IV (50 mg/kg)	
	C _{max} (mg/mL)	1.62 ± 0.10	1.70 ± 0.14	
	AUC _{0-∞} (mg·hour/mL)	294.1 ± 53.2	314.2 ± 31.3	

$T_{1/2\beta}$ (days)	9.3 ± 1.8	9.7 ± 1.1
Clearance (mL/hour)	0.43 ± 0.07	0.40 ± 0.04
V_{SS} (mL)	132 ± 2	127 ± 8

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REFERENCES

[1]. Nordstrom JL, et al. Anti-tumor activity and toxicokinetics analysis of MGAH22, an anti-HER2 monoclonal antibody with enhanced Fcγ receptor binding properties. Breast Cancer Res. 2011;13(6):R123. doi:10.1186/bcr3069

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

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