

Pertuzumab (PBS)

Cat. No.:	HY-P9912A
CAS No.:	380610-27-5
Target:	EGFR
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

Pertuzumab (PBS)

BIOLOGICAL ACTIVITY

Description	Pertuzumab (PBS), a humanized monoclonal antibody, is a HER2 dimerization inhibitor for the treatment of metastatic HER2-positive breast cancer.
IC₅₀ & Target	HER2
In Vitro	<p>Trastuzumab and Pertuzumab are highly synergistic inhibitors of BT474 breast cancer cell survival. The combination of trastuzumab and Pertuzumab mediates a loss of up to 60% of cells at doses in which individual drugs do not alter cell survival. The combination of trastuzumab and Pertuzumab reduces the percentage of proliferating (S-phase) cells by more than 2-fold. A combination of trastuzumab and Pertuzumab inhibits cell proliferation and survival to a greater degree than does either agent alone^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
In Vivo	<p>In Calu-3 NSCLC xenografts, monotherapy with pertuzumab or trastuzumab is able to significantly inhibit tumor growth, with treatment-to-control ratios (TCR) of 0.23 and 0.27, respectively. The combination of trastuzumab and pertuzumab produces a dramatically enhanced antitumor activity compared with single-agent treatments (TCR 0.05, resulting in tumor regression and, in 3 of 10 animals, complete tumor remission). Treatment of KPL-4 breast cancer xenografts with either trastuzumab or pertuzumab inhibits tumor growth with TCRs of 0.67 and 0.65, respectively. Pertuzumab maintains antitumor activity after progression on trastuzumab^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Nahta R, et al. The HER-2-targeting antibodies trastuzumab and pertuzumab synergistically inhibit the survival of breast cancer cells. *Cancer Res.* 2004 Apr 1;64(7):2343-6.

[2]. Scheuer W, et al. Strongly enhanced antitumor activity of trastuzumab and pertuzumab combination treatment on HER2-positive human xenograft tumor models. *Cancer Res.* 2009 Dec 15;69(24):9330-6.

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

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