

Abituzumab

Cat. No.:	HY-P99183
CAS No.:	1105038-73-0
Target:	Integrin
Pathway:	Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Abituzumab (DI17E6) is a humanised anti-integrin αV monoclonal antibody (IgG2 type). Abituzumab effectively reduces the phosphorylation of FAK, Akt and ERK. Abituzumab can be used in cancer research, particularly in prostate cancer ^[1] .																	
IC₅₀ & Target	Integrin αV ^[1] .																	
In Vitro	<p>Abituzumab (DI17E6) (0.01, 0.1, 1, 10, 30,100 $\mu\text{g}/\text{mL}$; 24 h) inhibits adhesion of PCa cells to multiple extracellular matrix proteins but not collagen I^[1]</p> <p>Abituzumab (100 $\mu\text{g}/\text{mL}$; 12, 18 h) inhibits motility and invasion of PCa cells^[1].</p> <p>Abituzumab (0.01, 0.1, 1, 10, 30,100 $\mu\text{g}/\text{mL}$; 24 h) inhibits the ability of PCa cells to adhere to osteoblast and bone stromal cell lines^[1].</p> <p>Abituzumab (100 $\mu\text{g}/\text{mL}$; 24 h) blocks integrin-mediated cell signaling in PCa cancer cell lines^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>PCa cells</td> </tr> <tr> <td>Concentration:</td> <td>0.01, 0.1, 1, 10, 30,100 $\mu\text{g}/\text{mL}$</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Promoted detachment of PCa cells from vitronectin (up to approximately 20% cells detached at 100 $\mu\text{g}/\text{mL}$), osteopontin (up to approximately 10% cells detached at 100 $\mu\text{g}/\text{mL}$) and fibronectin (up to approximately 10% cells detached at 100 $\mu\text{g}/\text{mL}$) but not from collagen I.</td> </tr> </table> <p>Cell Invasion Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>PCa cells</td> </tr> <tr> <td>Concentration:</td> <td>100 $\mu\text{g}/\text{mL}$</td> </tr> <tr> <td>Incubation Time:</td> <td>12, 18 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited invasive ability by approximately 25 to 30% compared to vehicle, and inhibited motility by approximately 30 to 40%.</td> </tr> </table>		Cell Line:	PCa cells	Concentration:	0.01, 0.1, 1, 10, 30,100 $\mu\text{g}/\text{mL}$	Incubation Time:	24 h	Result:	Promoted detachment of PCa cells from vitronectin (up to approximately 20% cells detached at 100 $\mu\text{g}/\text{mL}$), osteopontin (up to approximately 10% cells detached at 100 $\mu\text{g}/\text{mL}$) and fibronectin (up to approximately 10% cells detached at 100 $\mu\text{g}/\text{mL}$) but not from collagen I.	Cell Line:	PCa cells	Concentration:	100 $\mu\text{g}/\text{mL}$	Incubation Time:	12, 18 h	Result:	Inhibited invasive ability by approximately 25 to 30% compared to vehicle, and inhibited motility by approximately 30 to 40%.
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Cell Viability Assay^[1]

Cell Line:	PCa, hFOB, Saos2, HS-5, HDMEC cells
Concentration:	0.01, 0.1, 1, 10, 30,100 µg/mL
Incubation Time:	24 h
Result:	Inhibited PCa cells adhesion to human osteoblast cell lines hFOB and Saos2 and a bone marrow stromal cell line, HS-5. Promoted detachment of PCa cells from to a known expressor of α v integrins, HDMEC cells.

Western Blot Analysis^[1]

Cell Line:	PC3, DU145, C4-2B, LNCaP, ARCaP and VCaP cells
Concentration:	100 µg/mL
Incubation Time:	24 h
Result:	Inhibited FAK phosphorylation starting at 12 h and 6 h in C4-2B and LNCaP, respectively; AKT phosphorylation starting at 3 h and 2 h in C4-2B and LNCaP, respectively; and ERK phosphorylation at starting at 1 h and 1.5 h in C4-2B and LNCaP, respectively.

REFERENCES

[1]. Jiang Y, et al. Abituzumab Targeting of α V-Class Integrins Inhibits Prostate Cancer Progression. Mol Cancer Res. 2017 Jul;15(7):875-883.

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

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