
Article

Wnt/ β -catenin Signaling Regulates CXCR4 Expression and [^{68}Ga] Pentixafor Internalization in Neuroendocrine Tumor Cells

Alexander Weich ^{1,*}, Dorothee Rogoll ¹, Sophia Gawlas ¹, Lars Mayer ², Wolfgang Weich ¹, Judit Pongracz ³, Theodor Kudlich ¹, Alexander Meining ¹ and Michael Scheurlen ¹

- ¹ Department of Internal Medicine II, Gastroenterology, University Hospital Würzburg, 97080 Würzburg, Germany; Rogoll_D@ukw.de (D.R.); gawlas_s@ukw.de (S.G.); wolfgang.weich@gmx.de (W.W.); kudlich_t@ukw.de (T.K.); meining_a@ukw.de (A.M.); Scheurlen_m@ukw.de (M.S.)
- ² Department of Nuclear Medicine, University Hospital Würzburg, 97080 Würzburg, Germany; mayer_l3@ukw.de
- ³ Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, University of Pecs, 7630 Pecs, Hungary; pongracz.e.judit@pte.hu
- * Correspondence: weich_a@ukw.de; Tel.: +49-931-2014-4927

Citation: Weich, A.; Rogoll, D.; Gawlas, S.; Mayer, L.; Weich, W.; Pongracz, J.; Kudlich, T.; Meining, A.; Scheurlen, M. Wnt/ β -catenin signaling regulates CXCR4 expression and [^{68}Ga] Pentixafor internalization in neuroendocrine tumor cells. *Diagnostics* **2021**, *11*, 367. <https://doi.org/10.3390/diagnostics11020367>

Academic Editor: Rudolf A. Werner

Received: 15 January 2021

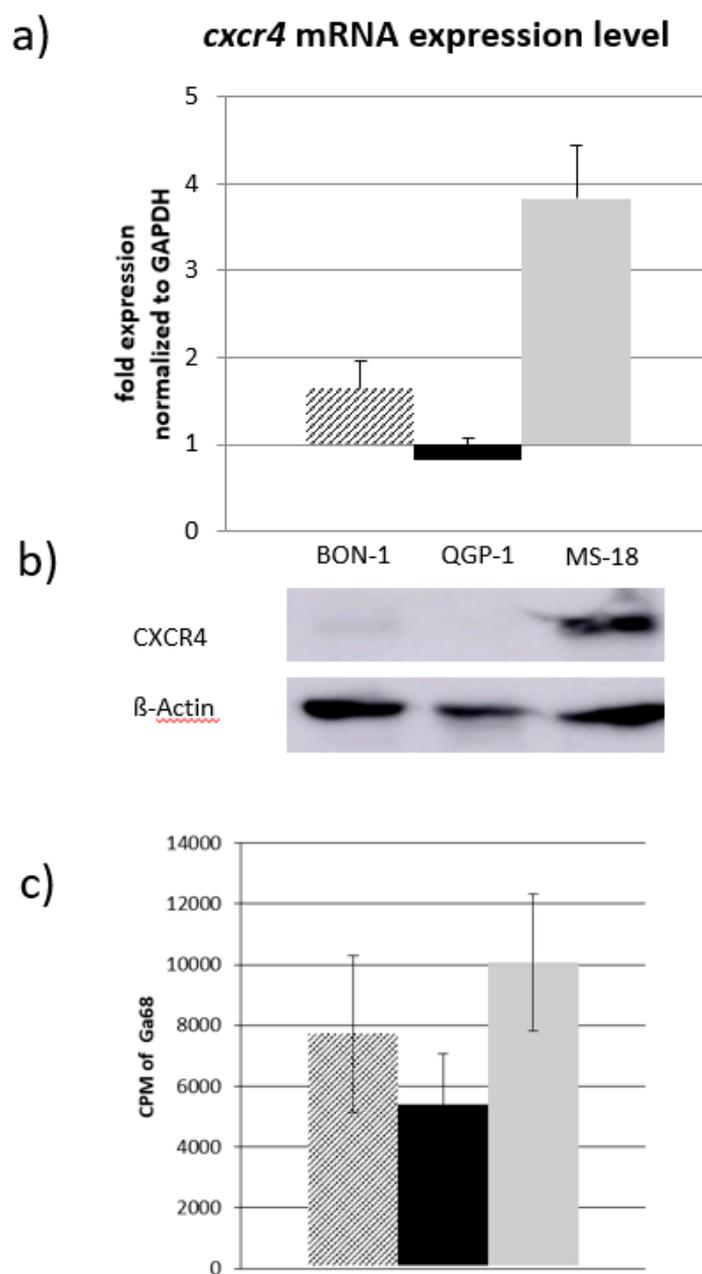
Accepted: 16 February 2021

Published: 22 February 2021

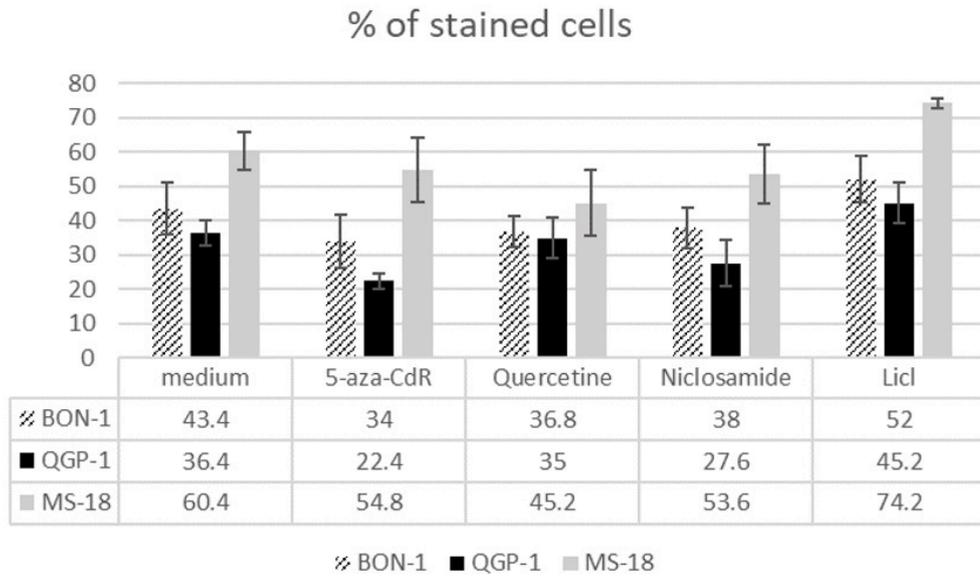
Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



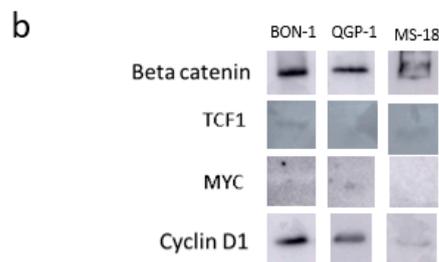
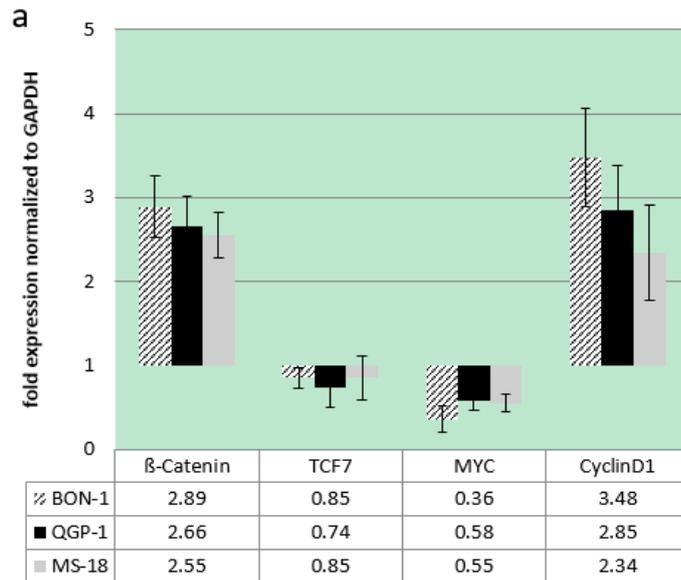
Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).



Supplementary Figure 1. Baseline CXCR4 a) mRNA expression b) Western blot c) Ga^{68} Pentixafor uptake in BON-1, QGP-1 and MS-18 cells; bars show mean \pm SEM from 6 experiments.



Supplementary Figure 2. Percentage of CXCR4 positive cells after immunohistochemical staining in BON-1, QGP-1 and MS-18 after Wnt modulator treatment.



Supplementary Figure 3. β-Catenin, TCF7, MYC, CCND1(CyclinD1) **a)** mRNA expression **b)** Western blot prior to treatment; bars show mean ±SEM from 6 experiments.

<i>gene symbol</i>	<i>Western blot</i>	<i>second antibody</i>	<i>Immunohistochemistry</i>	<i>TaqMan assay ID applied biosystems</i>
<i>CXCR4</i>	ab124824	W401	ab124824	Hs00607978_s1
<i>β-Catenin</i>	-	-	-	Hs00355049_m1
<i>TCF7</i>	-	-	-	Hs00175273_m1
<i>MYC</i>	-	-	-	Hs00153408_m1
<i>CCND1</i>	-	-	-	Hs00765553_m1
<i>GAPDH</i>	-	-	-	VIC/TAMRA #4310884E
<i>β-Actin</i>	sc-47778	W401	-	-

Supplementary Table 1: List of Antibodies used for Western Blotting, Immunohistochemistry and TaqMan gene expression assays for qRT-PCR.