

P026 PI3K γ controls migration of SK-N-LO neuroblastoma cell line

Michael Gruen¹, Christian Koenig¹, Volker Spitzenberg¹, Iris Gose^{1,2}, Sigrun Horn¹, Astrid Voigt³, and Reinhard Wetzker¹

¹ *Institute for Molecular Cell Biology, University of Jena, Jena Germany*

² *University of Applied Sciences, Jena, Germany*

³ *Childrens Hospital, Medical Faculty, University of Jena, Jena, Germany*

Expression of PI3K γ is largely restricted to leukocytes and cardiomyocytes in the healthy individual. Using RT-PCR, Western Blotting, and immunocytochemistry, we found an expression of PI3K γ in 4 clinical samples of neuroblastoma tumors and in 2 out of 6 neuroblastoma cell lines tested so far. Searching for the functional relevance of this expression, we applied a model system consisting of PI3K γ - positive cell line SK-N-LO and of PI3K γ - negative SK-N-AS cells. Both cell lines are positive for the PI3K γ adaptor protein p87 and the SDF-1 α receptor CXCR4. However, in transwell assays, only SK-N-LO migrated upon stimulation with SDF-1 α . Moreover, migration and Akt phosphorylation of SK-N-LO after SDF-1 α stimulation could be strongly decreased by specifically inhibiting PI3K γ . Our data point to a possible role of PI3K γ in metastasis of neuroblastoma cells.