

Table of contents

Geleitwort.....	V
Institute's profile	VII
Table of contents.....	IX
List of Abbreviations	XIII
List of Figures	XVII
List of Tables	XXI
Abstract	XXIII
1 Introduction.....	1
1.1 Cancer.....	1
1.2 Apoptosis.....	5
1.3 The cell cycle.....	9
1.4 Nucleocytoplasmic transport.....	13
1.5 Protein modifications	18
1.6 Survivin.....	23
1.7 Objective.....	28
2 Material.....	29
2.1 Chemicals	29
2.2 Buffers, solutions and media.....	30
2.3 Oligonucleotides.....	31
2.4 Plasmids	32
2.5 Enzymes	34
2.6 Antibodies	35
2.7 Organisms.....	36

2.8	Consumables.....	38
2.9	Kits	39
2.10	Instruments.....	39
2.11	Software	41
3	Methods.....	43
3.1	Molecular biological methods.....	43
3.2	Microbiological methods.....	47
3.3	Cell biological methods	48
3.4	Fluorescence microscopic methods.....	51
4	Results.....	65
4.1	Characterization of Flp-In cell line for stable expression of survivin mutants	66
4.2	Impact of survivin lysine ₁₂₉ mutation on Crm1 binding.....	68
4.3	Influence of survivin lysine ₁₂₉ mutation on homodimerization in HeLa cells.....	74
4.4	Impact of survivin lysine ₁₂₉ mutation on caspase activation	76
5	Discussion.....	81
5.1	Acetylation at lysine ₁₂₉ promotes interaction with Crm1	82
5.2	Free Crm-1 N-Terminus is indispensable for survivin binding	84
5.3	Acetylation at lysine ₁₂₉ does not affect survivin dimerization.....	86
5.4	Monomeric survivin does not enhance Crm1 binding	87

5.5 Survivin overexpression does not increase its cytoprotectivity	89
References	91
Appendix.....	103

Impact of Survivin Acetylation on its Biological Function

Dannheisig, D.

2017, XXIII, 104 p. 41 illus., 10 illus. in color., Softcover

ISBN: 978-3-658-18622-7