Regulation of T cell apoptosis and T cell activation through costimulatory signals

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Erklärung

Hiermit erkläre ich, dass ich die vorliegende Arbeit selbständig und nur unter Zuhilfenahme der angegebenen Hilfsmittel angefertigt habe.
Die praktischen Arbeiten wurden in der Abteilung für Klinische und Molekulare Onkologie (Leiter Prof. Dr. P. Daniel) an der Robert Rössle-Klinik (Klinik mit Schwerpunkt Hämatologie, Onkologie und Tumorimmunologie, Charité Campus Berlin-Buch; Ärztl. Direktor: Prof. Dr. B. Dörken) durchgeführt.

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Index of abbreviations

A	ampère(s)
aa	amino acid(s)
AICD	activation-induced cell death
AIDS	acquired immune deficiency syndrome
AIF	apoptosis inducing factor
Apaf	apoptosis associated factor
APC	antigen presenting cell
APS	ammoniumperoxodisulfate
ASK-1	apoptosis signal-regulating kinase 1
CAD	caspase activated DNase
CAPS	3-cyclohexylamino-1-propanesulfonic acid
CARD	caspase recruitment domain
caspase	cysteinyl aspartate-specific protease
CD	cluster of differentiation
c-FLIP	cellular FLICE inhibitory protein
CHAPS	3-(3-cholamidopropyl)dimethylammonio-1-propane sulfonate
CHUK	conserved helix-loop-helix ubiquitous kinase
Ci	curie
cpm	counts per minute
CTLA-4	cytolytic T lymphocyte associated antigen-4
Da	Dalton
dATP	desoxyadenosin triphosphate
DC	dendritic cell
DD	death domain
DED	death effector domain
DISC	death inducing signaling complex
DMSO	dimethylsulfoxide
DNA	desoxyribonuclic acid
DR	death receptor

DTT	dithiothreitol
ECL	enhanced chemoluminescence
EDTA	ethylendiamine tetraacetic acid
ERK	extracellular regulated kinase
FACS	fluorescence activated cell sorting
FADD	fas associated protein with death domain
FasR	fas-receptor
FITC	flourescein-5-isothiocyanate
FLICE	fas-associated death-domain-like IL-1β-converting enzyme
FLIP	FLICE inhibitory protein
FOXO3a	forkhead box O 3a
g	gram
g	gravitational constant (9.81 ms^{-2})
h	hour
HRP	horseradish peroxidase
HTLV-1	human T lymphotropic virus-1
ICOS	inducible co-stimulator
Ig	immunoglobulin
IL	interleukin
JNK	c-Jun N-terminal protein kinase
kb	kilobase
KS	Kaposi's sarcoma
LCMV	lymphocytic choriomeningitis virus
M	molar
mAb	monoclonal antibody
MAP kinase	mitogen-activated protein kinase
M-CSF	macrophage colony stimulating factor
MEK	MAP kinase kinase
MHC	major histocompatibility complex
NF-κB	nuclear factor kappa B
NGF	nerve growth factor

NIK	NF-κB inducing kinase
NK cell	natural killer cell
pAb	polyclonal antibody
PBMC	peripheral blood mononuclear cells
PBS	phosphate buffered saline
PDTC	1-pyrrolidinecarbodithioic acid
PE	phycoerythrin
PGE-2	prostaglandin E-2
PI3 kinase	phosphatidylinositol 3 kinase
PIP_3	phosphatidylinositol-3,4,5-triphosphate
PKC	protein kinase c
PND	paraneoplastic neurologic degeneration
PTLD	post-transplant lymphoproliferative disorders
rpm	rotations per minute
SAPK	stress-activated protein kinase
SDS	sodium dodecyl sulfate
SLP	SH2-domain leukocyte protein
STAT	signal transducers and activators of transcription
TAM	tumour associated macrophage
TCR	T cell receptor
TGF	transforming growth factor
TNF	tumour necrosis factor
TNFR	tumour necrosis factor receptor
TRAF	TNF receptor-associated factor
TRAIL	TNF-related apoptosis inducing ligand
V	volt
VDAC	voltage-dependent anion channel
VEGF	vascular endothelial growth factor
v-FLIP	viral FLICE inhibitory protein