The role of the ubiquitin system in human cytomegalovirus-mediated degradation of MHC class I heavy chains

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Cover illustrations

Foreground: Artist impression of the MHC class I complex bound to HCMV US2 protein while dislocating through a pore in the ER membrane.

Background: Artist impression of the ER membrane.

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voor mijn ouders

Contents

Abbreviations

aa	amino acid
β_2m	β_2-microglobulin
BIP	Immunoglobulin binding protein
Cnx	calnexin
Crt	calreticulin
CTL	cytotoxic T lymphocyte
DTT	dithiothreitol
EGFP	enhanced green fluorescent protein
EndoH	endoglycanase H
ER	endoplasmic reticulum
FCS	fetal calf serum
FITC	fluorescein isothiocyanate
HC	heavy chain
HCMV	human cytomegalovirus
HLA	human leucocyte antigen
IFN	interferon
IL	interleukin
IRES	internal ribosomal entry site
kDa	kilodalton
mAb	monoclonal antibody
MHC	major histocompatibility complex
MOI	multiplicity of infection.
NK cell	natural killer cell
NP40	nonidet P-40
PDI	protein disulfide isomerase
PE	phycoerythrin
Prot K	proteinase K
TAP	transporter associated with antigen processing
TM	transmembrane
TNF	tumor necrosis factor
Tx-100	triton X-100
US	unique short
wt	wild type
ZL_3H	carboxybenzyl-leucyl-leucyl-leucinal
ZLVS	carboxyl benzyl-leucyl-leucyl-leucyl vinylsulfone