Series GSE175744

Query DataSets for GSE175744

Status	Public on Aug 30, 2021
Title	Recurrent frameshift neoantigen vaccine elicits protective immunity with reduced tumor burden and improved overall survival in a Lynch syndrome mouse model
Organism	Mus musculus
Experiment type	Expression profiling by high throughput sequencing
Summary	DNA mismatch repair deficiency (MMRD) drives microsatellite instability (MSI). Cells with MSI accumulate numerous frameshift mutations. Frameshift mutations affecting cancer-related genes may promote tumorigenesis and, therefore, are shared among independently arising MSI tumors. Consequently, such recurrent frameshift mutations can give rise to shared immunogenic frameshift peptides (FSPs) that represent ideal candidates for a vaccine against MSI cancer. Pathogenic germline variants of mismatch repair genes cause Lynch syndrome (LS), a hereditary cancer syndrome affecting approximately 20-25 million individuals worldwide. LS individuals are at high risk of developing MSI cancer. Previously, we demonstrated safety and immunogenicity of an FSP-based vaccine in a Phase I/IIa clinical trial. However, the cancer-preventive effect of FSP vaccination in the scenario of LS has not been demonstrated so far.
Overall design	RNA-seq was performed on tumor and normal intestinal tissue from VcMsh2 mice, treated with NSAID, FSP-vaccination, or combination.
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Citation missing	*Has this study been published? Please login to update or notify GEO.*
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Platforms (1)	GPL24247 Illumina NovaSeq 6000 (Mus musculus)
Samples (69)	GSM5345283 LMN44-N
More...	GSM5345284 LMN45-N
	GSM5345285 LMN46-N

Relations

BioProject	PRJNA733477
SRA	SRP321772

Download family	Format
SOFT formatted family file(s)	SOFT
MINiML formatted family file(s)	MINiML
Series Matrix File(s)	TXT

Supplementary file	Size	Download	File type/resource
GSE175744_RawCounts.csv.gz	2.1 Mb	(ftp)(http)	CSV

SRA Run Selector

Raw data are available in SRA

Processed data are available on Series record