

**Table S7** Mapping of epitope complex #1A-D based on 391 complete and partial amino acid sequences from the NCBI GenBank database.

Linear A27 epitope aa 26-39	OPXV genera	Number of DB entries
KKPEAKREAIVKAD	VARV major	66/67
	VARV minor	2/2
	VACV	59/61
	BPXV	26/26
	HSPV	2/2
	RPXV	2/2
	CPXV	51/134
	TaPXV	2/3
_KPEAKREAIVKAD	CPXV	3/134
	TaPXV	1/3
KKPEAKREAIVKAE	CPXV	64/134
_KPEAKREAIVKAE	CPXV	2/134
KKPEAKREAIKAD	CMLV	17/18
KRPEAKREAIKAD	CMLV	1/18
KRPEAKREAIVKAE	CPXV	1/134
KNPETKREAIVKAY	MPXV	57/57
KKPEDKHEATVKAD	ECTV	13/14
_KPEDKHEATVKAD	ECTV	1/14
KKPEAKHEAIVKAD	VARV major	1/67
KKPEAKHEAIVKAE	CPXV	1/134
KKQEAKREAIVKAE	CPXV	8/134
_KQEAKREAIVKAE	CPXV	1/134
KKPEAKREAFVKAE	CPXV	1/134
KKPEVKREAIVKAE	CPXV	1/134
_KPEEKRKAVVKAE	VPXV	1/1
KKPDRKREQIVKAD	VACV	1/61
_KPEAKRKVVEKAD	RCNV	1/1

<u>KSORLNAKQLLKLR</u>	CPXV	1/1
<u>TSRSSTGSANPSAS</u>	VACV	1/61
KKPE <u>EPV</u> KR <u>KVVKNKNKHKV</u> VKAD ( <u>aa 26-49</u> )	SkPXV	3/3

- 3 Differences within the epitope sequence are highlighted.