

# BKV (LT) Peptide Pool

## BK polyomavirus (large T) peptide pool for immune cell activation

Catalog #100-1398

~25 µg (15 nmol)/peptide



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## Product Description

BKV (LT) Peptide Pool is a lyophilized mixture of 171 peptides from large T (LT) antigen of BK polyomavirus (BKV). The pool consists of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 695 on LT antigen. LT antigen is an early viral protein (Low et al.) and contributes to transformation and maintenance of host cells (Nakshatri et al.). It has been found to bind to a subset of tumor suppressor proteins (Harris et al.), and its co-expression with p53 has been observed in polyomavirus-associated nephropathy (Seemayer et al.). One unit of this product (i.e. ~25 µg/peptide) is sufficient for stimulating  $2.5 \times 10^8$  cells.

### APPLICATIONS

- Antigen-specific T cell stimulation
- Cellular immune response
- Immune monitoring
- T cell assays
- T cell expansion

## Product Information

Number of Peptides:	171
Source:	BK polyomavirus (BKPyV) (also known as human polyomavirus 1)
Accession Number:	P03071
Protein Name:	Large T (LT) antigen
Protein Sequence:	MDKVLNREESMELMDLLGLERAAWGNLPLMRKAYLRKCKEFHPDKGGDEDKMKRMNTLYKKMEQDVKVAHQPD DFGTWSSSEVPTYGTEEWESWWSSFNKWDDEDLFCHEDMFASDEEATADSQHSTPPKKKRKVEDPKDFPSDLHQ FLSQAVFSNRTLACFAVYTTKEKAQILYKKLMEKYSVTFISRHMCAGHNIIFLTPHRHRVSAINNFCQKLCTFSFLIC KGVNKEYLLYSALTRDPYHTIEESIQGGLEKEDFSPEEPEETKQVSWKLITEYAVETKCEDVFLLLGMYLEFYQNVVEE CKKCQKKDQPYHFKYHEKHAFANIIFAESKNQKSICQQAQVDTVLAKKRVDTLHMTREEMLTERFNHILDKMDLIFG AHGNAVLEQYMAGVAWLHCLLPKMDSVIFDLHCIVFNVPKRRYWLFGPIDSGKTTLAAGLLDLCGGKALNVNL PMERLTFELGVAIDQYMVVFEDVKGTGAESKDLPSGHGINNLDRLDYLDGSVKVNLEKKHLNKRQIFPPGLVTM NEYPVPKTLQARFVRQIDFRPKIYLRKSLQNSEFLLEKRIQLQSGMTLLLLLIWFRPVADFATDIQSRIVEWKERLDSEIS MYTFSRMKYNICMGKCILDITREEDSETEDSGHGSSTESQSQCSSQVSDTSAPAEDSQRSRDPHSQELHLCKGFQC FKRPKTPPPK
Purity:	Average 70%
Formulation:	Lyophilized as trifluoroacetate salts

## Preparation and Storage

Storage:	Store at -20°C.
Stability:	Stable as supplied until expiry date (EXP) on label.
Preparation:	Warm to room temperature (15 - 25°C) before reconstitution. Add pure dimethyl sulfoxide (DMSO; ~40 µL) and dilute with water to the desired concentration. Final concentration of DMSO must be below 1% (v/v) to avoid toxicity in the biological system. If not used immediately, aliquot and store at -20°C. Protect from light. Avoid repeated freeze-thaw cycles.

## Related Products

For a complete list of peptide pools, as well as related products available from STEMCELL Technologies, visit [www.stemcell.com](http://www.stemcell.com), or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

- Harris KF et al. (1996) BK virus large T antigen: interactions with the retinoblastoma family of tumor suppressor proteins and effects on cellular growth control. *J Virol* 70(4): 2378–86.
- Low J et al. (2004) BKV and SV40 infection of human kidney tubular epithelial cells in vitro. *Virology* 323(2): 182–8.
- Nakshatri H et al. (1988) Functional role of BK virus tumor antigens in transformation. *J Virol* 62(12): 4613–21.
- Seemayer CA et al. (2008) BK virus large T and VP-1 expression in infected human renal allografts. *Nephrol Dial Transplant*. 23(12): 3752–61.

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