

# HHV6 (U54) Peptide Pool

**Human herpesvirus 6B (U54) peptide pool for immune cell activation**

Catalog #100-1401

~25 µg (15nmol)/peptide



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## Product Description

HHV6 (U54) Peptide Pool is a lyophilized mixture of 112 peptides from protein U54 of human herpesvirus 6B (HHV-6B; strain Z29). The pool consists of 15-mer peptides with 11-amino-acid overlaps that cover amino acids 1 - 459 on U54. U54 is a tegument transactivator and is suggested to be a homolog of the CMV UL82/83 (pp65/72K) protein (Isegawa et al.; Nicholas). In infected T cells, U54 has been shown to inhibit gene transcription of interleukin 2 (IL-2), the T cell growth factor, which likely contributes to viral persistence (Iampietro 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:	112
Source:	Human herpesvirus 6 variant B (strain Z29) (also known as human B lymphotropic virus [HBLV])
Accession Number:	Q9QJ29
Protein Name:	Protein U54
Protein Sequence:	MQPATLQWSSYVLQLRLTTAAILKPGELRYFKCGLGICPPSSSVVCTCRDESSFAASPFTYIDPKDYGNIPFAVHNIS DLDDLGRPLIVLNIFALPYANVTVSNLPVQRIEAYDRHAIPHGQCEAQFILYGPLTRIKIYAADIRWTEKTPEEPTRYL FNADIWINLQNTPLDQIFNSAKIEFISHRHVSISRILLCGNLLILKTVYENDYLLDDTFFPEKLNQLSLTPHTADITMSQ NQETLLKCNVGSITVGATKNIVSNLITPFHCSFHTIFESNSNFTGFFIPKLLHGSIITTCIWDETRPLYITMKAQKKNCRI NYSQELGKVFFFPKQILPPGNNIEFSWTEMSNIYVNIESPNGPVKDIVALASQPVSRAPSLTTVAHVTPPEISMGIPLKS LRIAFDKEHLVPLHFFLKPGESTRMEFMPPETPQSLTILEGDVGIRFIPCHNNYSHRSSP
Gene Name:	U54
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

- Iampietro M et al. (2014) Inhibition of interleukin-2 gene expression by human herpesvirus 6B U54 tegument protein. *J Virol* 88(21): 12452–63.
- Isegawa Y et al. (1999) Comparison of the complete DNA sequences of human herpesvirus 6 variants A and B. *J Virol* 73(10): 8053–63.
- Nicholas J. (1996) Determination and analysis of the complete nucleotide sequence of human herpesvirus. *J Virol* 70(9): 5975–89.

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