Datasheet for ABIN6699430

# HIV-1 Tat (AA 48-60) peptide (Biotin)

Go to Product page

## Overview

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| Quantity: | 1 mg |
| Target: | HIV-1 Tat |
| Protein Region: | AA 48-60 |
| Source: | Synthetic |
| Peptide Type: | Synthetic |
| Purification tag / Conjugate: | This HIV-1 Tat peptide is labelled with Biotin. |

## Product Details

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| Purpose: | HIV-1 tat, (48-60), Biotin Conjugated peptide |
| Purification: | Greater than 95% specific peptide. |
| Purity: | Greater than 95% specific peptide. |

## Target Details

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| Target: | HIV-1 Tat |
| Target Type: | Viral Protein |
| Background: | Synonyms: Protein Tat, Transactivating regulatory protein, Human immunodeficiency virus type 1 (HIV-1), control peptide, blocking peptide<br>Background: Translocation through the plasma membrane has been shown to be a major limiting step for the delivery of various macromolecules to the cytoplasm and other intracellular compartments (e.g., mitochondria, nucleus). Numerous studies have confirmed that specific peptide sequences known as cell penetrating peptides (CPP) derived from proteins able to |

## Target Details

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| | cross the plasma membrane, can be added to various cargo and delivered across cell membranes. The cargo molecules that have been successfully transported into cells includes oligonucleotides, peptides, peptide nucleic acids, proteins and nanoparticles. One of these translocating peptides was derived from the HIV-1 Tat protein, specifically located within the first exon of the HIV tat protein. The specific HIV tat sequence is highly basic (cationic) and is readily added to peptides either as a preformed peptide with a site for direct conjugation to other molecules (typically a cysteine). Addition of the tat-cargo complex (5-50 uM concentration) to cells for 30-60 minutes results in the transfer of the tat-cargo complex to intracellular locations in a rapid, dose-dependent manner. The addition of nuclear or mitochondrial localization sequences has been shown to specifically direct the cargo to the nucleus or mitochondria respectively. |

## Application Details

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| Application Notes: | Application Note: HIV-1 tat, 48-60 Control Peptide is suitable for use in ELISA, Western Blot, Dot blot, PCA, and other assays. Control peptide should be used at 1.0 µg per 1.0 µL of antiserum in per assay. Specific conditions for reactivity should be optimized by the end user.<br>Other: Control peptide should be used at 1.0 µg per 1.0 µL of antiserum per assay. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Reconstitution_Buffer: Restore with deionized water (or equivalent)<br>Reconstitution_Volume: 1.0 mL |
| Preservative: | Without preservative |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Store vial at 2 - 8 ° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use. |
| Expiry Date: | 12 months |