

## HIV Helper-T Cell Epitopes

Table 10: Tat

HXB2 Location	Author Location	Sequence	Immunogen	Species(HLA)	References
Tat(1–20)	Tat(1–20 LAI)	MEPVDPRLEPWKKHPGSQPKT	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
			• Stronger, broader responses were observed in animals vaccinated with DNA epidermally rather than with intramuscular protein • Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev		
Tat(16–35)	Tat(16–35 LAI)	SQPKTACTTCYCKKKCCFHQCQ	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
			• Stronger, broader responses were observed in animals vaccinated with DNA epidermally rather than with intramuscular protein • Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev		
Tat(17–32)	Tat(17–32)	QPKTACTNCYCKRCCF	HIV-1 infection	human( )	[Ranki (1997)]
		• T-cell response to this epitope persisted after seroreversion			
Tat(31–50)	Tat(31–50 LAI)	CFHCQVCFTTKALGISYGRK	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
			• Stronger, broader responses were observed in animals vaccinated with DNA epidermally rather than with intramuscular protein • Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev		
Tat(33–48)	Tat(33–48)	HCQVCFMTKGLGISYG	HIV-1 infection	human( )	[Ranki (1997)]
		• T-cell response to this epitope persisted after seroreversion			
Tat(46–65)	Tat(46–65 LAI)	SYGRKKRRQRRPPGQSQTH	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
			• Stronger, broader responses were observed in animals vaccinated with DNA epidermally rather than with intramuscular protein • Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev		
Tat(61–80)	Tat(61–80 LAI)	GSQTHQVSSLQKPTSQPRGD	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
			• Stronger, broader responses were observed in animals vaccinated with DNA epidermally; rather than with intramuscular protein • Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev		

Helper T

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HXB2 Location	Author Location	Sequence	Immunogen	Species(HLA)	References
Tat(67–86)	Tat(67–86 LAI)	VSLSKQPTSQPRGDPTGPKE	Nef, Rev and Tat DNA immunization	murine(H-2 <sup>d</sup> )	[Hinkula (1997)]
		<ul style="list-style-type: none"> <li>• Stronger, broader responses were observed in animals vaccinated with DNA epidermally rather than with intramuscular protein</li> <li>• Some proliferative response to vaccination was observed to peptides throughout Nef and Tat, less for Rev</li> </ul>			
Tat( )	Tat( )	DNA constructs encoding HIV-1 genes nef, rev or tat;	human( )	[Calarota (1999)]	
		<ul style="list-style-type: none"> <li>• 9/9 HIV-1+ subjects were given one of three DNA vaccinations for nef, rev or tat, and novel proliferative and CTL responses were generated</li> <li>• The nef DNA immunization induced the highest and most consistent CTLp activity, IFN-γ production, and IL-6 and IgG responses</li> <li>• Highly active antiretroviral treatment (HAART) did not induce new HIV-specific CTL responses but reduced viral load, while DNA vaccination induced new immune responses but did not reduce viral load – thus this is a potentially complementary and promising combination</li> </ul>			