

Supplemental Table S3

Evidence linking genotype with phenotype

Type of experimental model (in vitro, in vivo preclinical, or clinical)	Major Findings	References	Level of Evidence
In vitro	Peripheral blood mononuclear cells (PBMCs) from abacavir hypersensitive patients show CD8 proliferation when cultured with abacavir	Phillips et al ⁷³ , Martin et al ⁷⁴ , Chessman et al ⁷⁵	High
In vitro	PBMCs from abacavir hypersensitive patients have significantly higher levels of TNF-alpha when cultured with abacavir, compared to abacavir tolerant patients	Martin et al ⁷⁴ , Almeida et al ⁷⁶ , Stekler et al ⁷⁷	High
In vitro	PBMCs from abacavir hypersensitive patients have significantly higher levels of interferon-gamma when cultured with abacavir, compared to abacavir tolerant patients	Martin et al ⁷⁸ , Chessman et al ⁷⁵ , Almeida et al ⁷⁶ , Stekler et al ⁷⁷	High
In vitro	Culture with abacavir induces cytokine production in isolated CD8+ T cells in healthy abacavir-naïve <i>HLA-B*57:01</i> -positive patients, but not in those with closely related B57 alleles	Chessman et al ⁷⁵	High
Clinical	Presence of <i>HLA-B*57:01</i> is predictive of clinically diagnosed abacavir hypersensitivity	Zucman et al ⁷⁹ , Mallal et al ⁸ , Hetherington et al ⁸⁰ , Mallal et al ⁸¹ , Martin et al ⁷⁴ , Hughes et al ⁸² , Stekler et al ⁷⁷ , Rodriguez et al ⁸³ , Saag et al ⁸⁴ , Rauch et al ⁸⁵ , Hughes et al ⁸⁶	High
Clinical	Presence of <i>HLA-B*57:01</i> is predictive of immunologically confirmed (patch test)	Phillips et al ⁷³ , Mallal et al ⁸ , Saag	High

	hypersensitivity	et al ⁸⁴	
Clinical	Prospective screening of <i>HLA-B*57:01</i> reduces the incidence of clinically diagnosed abacavir hypersensitivity	Rauch et al ⁸⁷ , Waters et al ¹⁸ , Young et al ²⁴ , Mallal et al ⁸ , Martin et al ⁷⁴	High
Clinical	Prospective screening of <i>HLA-B*57:01</i> reduces the incidence of immunologically confirmed (patch test) hypersensitivity	Rauch et al ⁸⁷ , Young et al ²⁴ , Mallal et al ⁸	High
Clinical	Abacavir skin patch testing results strongly correlate with presence of <i>HLA-B*57:01</i> and can still be reactive years after original presentation of abacavir hypersensitivity, indicating a durable immune response.	Phillips et al ⁷³ , Phillips et al ⁸⁸	High