

Table S1: showing the antigenicity and allergenicity status for each of the shortlisted T cell epitope against target protein of (Accession ID:A0A3G6HK40) of *Alcaligenes faecalis*.

Accession ID (Uniprot)	Epitope	Peptide sequences	Antigenicity Scores	Allergenicity Status
A0A3G6HK40	T cell	ITDGWELAV	1.5	Allergen
A0A3G6HK40	T cell	RTEQGQHLV	0.6	Allergen
A0A3G6HK40	T cell	NTATITNQL	0.5	Allergen
A0A3G6HK40	T cell	LTATGNSSL	0.7	Allergen

Table S2: MM-GBSA analysis showing individual binding energies for each of the docking complex.

Docking Complex	Van der Waals energy (VDW)	Electro static energy (ELE)	Gibbs free energy (GB)	Surface Area (SA)	Total binding energy
MEVC-A0A2U2BJQ9	-118.67	-545.86	647.66	-15.09	-31.95
MEVC-A0A3G6HQC3	-119.17	-552.95	650.35	-15.05	-36.81