

Table S1: List of primers used in the study.

Primer name	Nucleotide sequence (5' → 3')	Comment
pET28a-Rv2231c-F	AAGGATCCATGGTGTCTCTGGATTCTTG	Cloning of Rv2231c into pET28a and pSTKi vectors
pET28a-Rv2231c-R	AAGAATTCCACACTCATCGGCGTCCTC	

Table S2: The concentration of reactants used for assaying Rv2231c transaminase activity.

Constituents	Concentrations
Tris buffer (pH-8.0)	50 mM Tris-HCL, 150 mM NaCl
NAD ⁺	250 mM
Pyridoxal-5-phosphate	20 μM
Histidinol phosphate	2000 μM
2-Oxoglutarate	1000 μM
Glutamic dehydrogenase	2.37 U/ml
Enzyme (Rv2231c)	1 μM

NAD⁺; nicotinamide adenine dinucleotide.

Table S3: Kinetic parameters of *M. tuberculosis* Rv2231c.

Kinetic parameters (amino transferase activity)	Result
K _M [mM]	0.6 ± 0.05
K _{cat} [S ⁻¹]	(4.33±0.07) × 10 ²
K _{cat} /K _M [M ⁻¹ S ⁻¹]	(0.72±0.02) × 10 ⁶

Table S4: Secondary structure of Rv2231c.

S.No	Protein	% α -helix		% β -sheets	
		CD	FTIR	CD	FTIR
1	Rv2231c	28.84	25	13.66	19

CD; circular dichroism, FTIR; fourier transform infrared spectroscopy.

Table S5: T_m of Rv2231c determined using fluorescence, CD, and DSC.

S.No	Protein	CD	DSC
1	Rv3221c	55°C	67°C

CD; circular dichroism, DSC; differential scanning calorimetry.