Indian Journal of Biochemistry & Biophysics
Vol. 63, June 2026, pp. 689-699
DOI: 10.56042/ijbb.v63i6.28419

Correlating amino acid profiles with improved expression capability of superior CHO based expression platforms

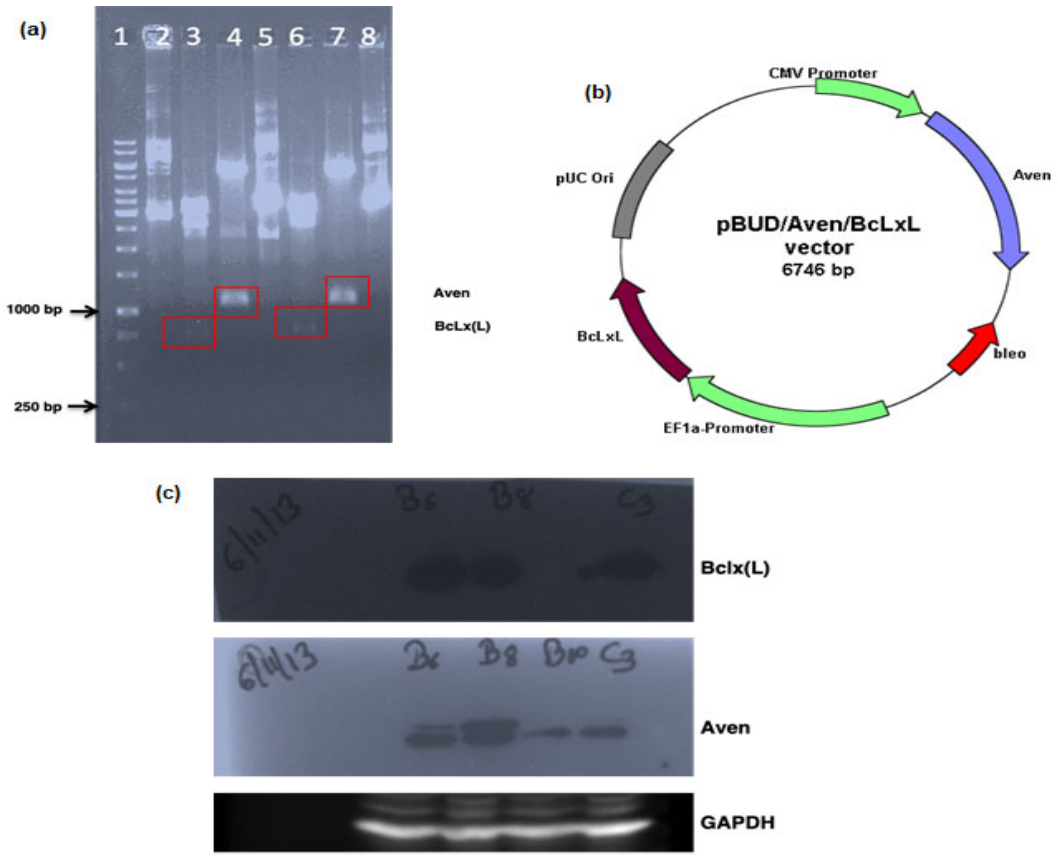
Vijeta Sharma[1], Richa Guleria[1#] & Krishna Jyoti Mukherjee[1,2]*

[1]School of Biotechnology, Jawaharlal Nehru University, New Delhi-110 067, Delhi, India

[2]Department of Biochemical Engineering and Biotechnology, Indian Institute of Technology Delhi, New Delhi- 110 016, Delhi, India

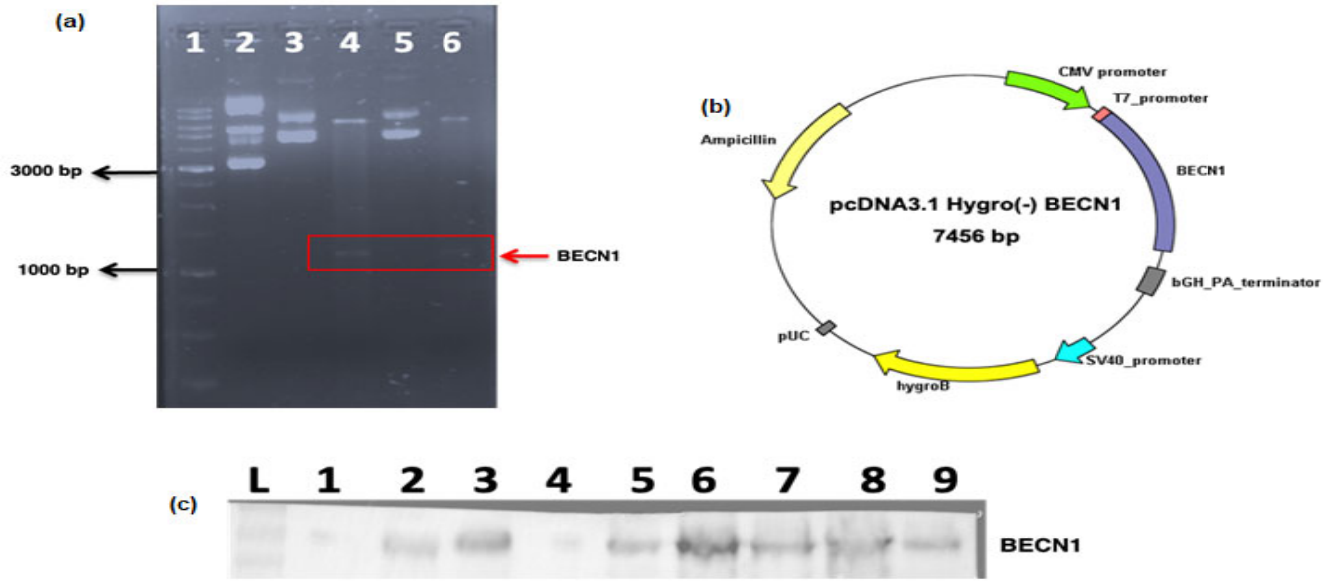
Received 07 February 2026; *revised 07 April 2026*

Supplementary data

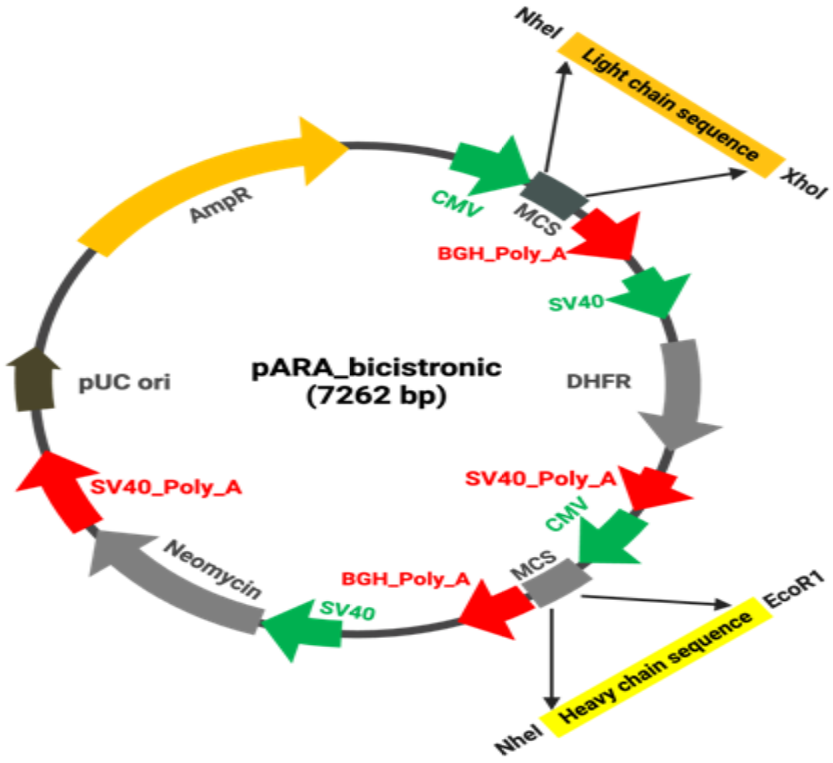


Suppl. Fig. S1 — (A) Final confirmation of pBUD Bcl-x(L) Aven (Lane 1: Ladder; Lane 2: Construct 1; Lane 3: Bgl II-Not I digested construct 1; Lane 4: Sal I-Xba I digested construct 1; Lane 5: construct 2; Lane 6: Bgl II-Not I digested construct 2; Lane 7: Sal I-Xba I digested construct 2) (B) pBUD- Bcl-x(L)-Aven construct (C) Western blot confirming expression of Bclx(L) and Aven in CHO cells (GAPDH is used as a loading control).

Antibodies used: (1) Bclx(L) antibody: Bclx(L) mouse monoclonal IgG, Santa Cruz (concentration used 1:1000), cat. # sc-8392 (2) Aven antibody, cat. # 2300S (concentration used 1:1000) (3) Anti-GAPDH: Santa Cruz (concentration used 1:1000) (3) Secondary anti-rabbit IgG HRP linked antibody (concentration used 1:10000), cat. # 7074S) (4) Anti-mouse antibody: Goat anti-mouse IgG HRP (concentration used 1:10000), cat. # sc-2005



Suppl. Fig. S2 — (A) Ligation confirmation of BECN1 to pcDNA 3.1(-) Hygro by restriction digestion with Bam HI –Xba I (Lane 1: Ladder; Lane 2: Plasmid backbone; Lane 3: construct 1; Lane 4: double digested construct 1; Lane 5: construct 2; Lane 6: double digested construct 2) (B) pcDNA 3.1(-) Hygro - BECN1 construct (C) Westen blot confirming the expression of pcDNA3-BECN1 in CHO cells (Lane 1: Ladder; Lane 2: DG44 cell lysate; Lane 3-9: lysates of transfectants).Antibodies used: (1) Anti BECN1: BECN1 (H-300), Santa Cruz (concentration used 1:1000), cat. # sc-11427 (2) Anti GAPDH: Santa Cruz (concentration used 1:1000) (3) Secondary Anti rabbit IgG, HRP linked antibody, (concentration used 1:10000), cat # 7074S) (4) Anti Mouse antibody: Goat anti-mouse IgG HRP (concentration used 1:10000), cat. # sc-2005



Suppl. Fig. S3 — Plasmid construct for Rituximab expression