



Figure S3. Proposed expression mechanism for *V. parahaemolyticus* PeuA ferric Ent receptor under iron-limiting conditions in response to extracellular alkaline pH and Ent. Thick arrows and wavy arrows represent the open reading frames and the direction of transcription and mRNAs, respectively. (A) Under iron-limiting conditions at pH 7.0, *peuA* is co-transcribed with *VPA0151-VPA0156* from the +1 transcription start site. However, the transcript from the +1 site forms a secondary structure within its 5'-UTR, leading to inhibition of translation of the *peuA* mRNA, although the remaining *VPA0151-VPA0156* mRNA is translated. (B) Under iron-limiting conditions at pH 8.0 in the absence of Ent, transcription of the *peuA/VPA0151-VPA0156* operon from the +39 site also occurs to a slight extent, combined with normal transcription beginning at the +1 site. The presence of Ent under iron-limiting conditions at pH 8.0 is proposed to result in induction of transcription from the +39 site, and thereby leads to enhanced expression of the ferric Ent receptor PeuA, because the RBS and start codon of *peuA* in the +39 transcript are available for translation initiation. The *peuA* gene, therefore, is optimally expressed under iron-limiting conditions in response to extracellular alkaline pH and Ent. In addition, the two-component regulatory system, PeuRS, is proposed to be necessary to activate *peuA* transcription in response to these signals.