

Echidna $\alpha$ - lactalbumin	K V F E K C E L S Q M L K A N G L D G F Q G I T L E E W I C I A F H E S G F D S R A L N
Platypus $\alpha$ - lactalbumin	R I F Q I C E L S R V L K E N G L G G F H G V S L E E W L C V I F H E S G Y D S Q A L N
Bovine lysozyme	K V F E R C E L A R T L K K L G L D G K Y G V S L A N W L C L T K W E S S Y N T K A T N
	10 20 30 40
Echidna $\alpha$ - lactalbumin	Y Y - - N G S S S H G L F Q I N R Q Y W C D G Q D K A S T E P S V N A C Q I S C D K L R
Platypus $\alpha$ - lactalbumin	Y Y - - N G S S S H G L F Q I N Q P Y W C D D X D S E S T E P S V N A C Q I P C S K L L
Bovine lysozyme	Y N P S S E S T D Y G I F Q I N S K W W C N - - - D G K T P N A V D G C H V S C S E L M
	50 60 70 80
Echidna $\alpha$ - lactalbumin	D D D I E D D I K C V K K I L K E S O G I T A W E A W Q P F C I A D - L D Q W K - - C - -
Platypus $\alpha$ - lactalbumin	D D D I L D D I E C A K K I V K E P K G I T A W E A W Q P F C N S D - L D Q W K - - C - -
Bovine lysozyme	E N D I A K A V A C A K H I V S E - Q G I T A W V A W K S H C R D H D V S S Y V E G C T L
	90 100 110 120

  : The catalytic sites of lysozyme        : The permanent residues of lysozyme

**Fig. 1 Amino acid sequences of platypus and echidna  $\alpha$  - lactalbumin, and bovine lysozyme**  
**Numbering is done for the amino acid sequence of the lysozyme.**