We offer various packaging (protein concentration, activity, etc.) if necessary.

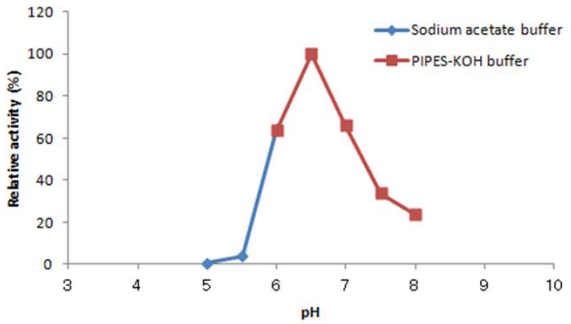
Data sheet

Enzyme	;	**Butyrate kinase**
Code	;	BUK-10-01
Lot No.	;	
Protein conc.	;	mg/ml
Volume	;	ml
Form	;	20 mM Tris-HCl (pH 8.0), 50 mM KCl, 5 mM $MgCl_2$
Storage	;	-20 ºC *Avoid repeated freeze and thaw cycles.
Activity	;	U/ml
Notes	;	For research use only

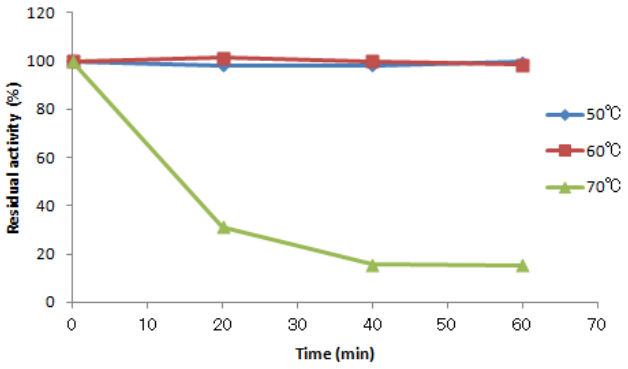
Activity measurement

Reaction mix (50 mM PIPES-KOH buffer (pH 6.5), 5 mM Valeric acid, 10 U/ml Pyruvate kinase, 2 U/ml Lactate dehydrogenase, 1 mM Phosphoenolpyruvate, 2 mM ATP, 5 mM $MgCl_2$, 0.3 mM NADH and appropriate amount of the enzyme) was incubated at 37 ºC and A_{340} was monitored. One unit is defined as the amount of the enzyme oxidizing 1 μmol of NADH (ε_{340}=6.22 mM^{-1} cm^{-1}) per 1 minute using Valeric acid as a substrate.

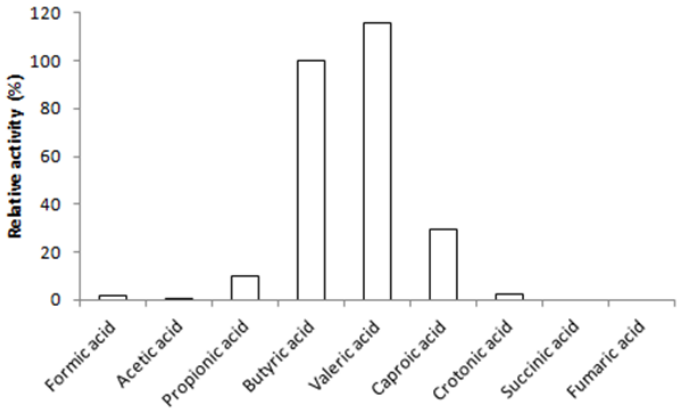
pH profile



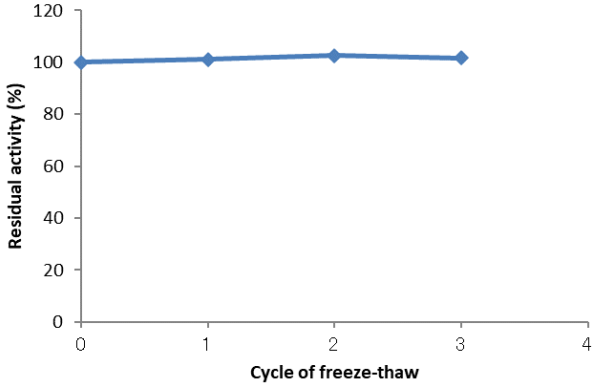
Thermostability



Substrate specificity



Freeze and thaw stability



Kinetic parameters

K_m for Butyric acid = 3.4 mM (@37 ºC, pH 6.5)

K_m for Valeric acid = 2.7 mM (@37 ºC, pH 6.5)

K_m for ATP = 0.3 mM (@37 ºC, pH 6.5)