

**S4 Table. Common blocks/patterns between MYLK and Rho protein families members.**

Family	Seq. nos.	Similarity (%)	Patterns		
			4244134	142518	475134
MYLK	1	100	1601-IKLIDFG	1585-DLKPEN	1623-GTPEFV
	2	100	422-VKIIDFG	406-DLKPEN	444-GTPEFL
	3	100	652-IKIIDFG	636-DLKPEN	674-GTPEFL
	4	100	243-IKIIDFG	227-DLKPEN	265-GTPEFL
Rho	1	100	212-LKLADFG	198-DVKPDN	236-GTPDYI
	2	100	228-LKLADFG	214-DVKPDN	252-GTPDYI
Domain			ATP, starting site of Activation loop	Start of proton acceptor site	Ending site of activation loop