



(a)

Function ID	MIPS ID	Function name
1	10.03.01	mitotic cell cycle and cell cycle control
2	10.03.01.01.11	mitosis
3	10.03.04.09	nuclear migration
4	10.03.05.01	spindle pole body/centrosome and microtubule cycle
5	14.01	protein folding and stabilization
6	16.01	protein binding
7	34.11.03.07	pheromone response, mating-type determination, sex-specific proteins
8	41.01.01	mating (fertilization)
9	42.04	cytoskeleton
10	42.04.05	microtubule cytoskeleton
11	43.01.03.05	budding, cell polarity and filament formation

(b)

Fig. 2: Topological shape and functional annotations of Cluster 20 in Additional file 1. (a) sub graph of Cluster 20 extracted from DIP PPI network. Each protein is annotated by MIPS functional category. (b) MIPS functional IDs and their corresponding literal names. The best assigned functional term is boldfaced.