

## Supplementary materials

**Table S1.** The results of the performed biocatalytic reactions for the synthesis of KMSB.

Experimental Stage	Experiment number			
	1	2	3	4
Initial concentration of L-selenomethionine, mM	102	110	107	103
Reaction mixture volume, ml	13	10	25	25
Concentration of L-amino acid oxidase, mg/ml	5	5	4.6	4.2
Concentration of catalase, mg/ml	0.4	0.4	0.4	0.4
Reaction time, h	7.5	6.9	8	7.5
Yield of the KMSB by kinetics, %	88	80	90	87
Total yield of the KMSB (taking into account the stages of isolation and purification), %	60	51	64	67
Chemical purity of the KMSB, %	99.3	99.5	99.6	99.6
Content of L-selenomethionine in the KMSB preparation, %	not detected	not detected	not detected	not detected
Content of unidentified impurities in the KMSB preparation, %	0.7	0.5	0.4	0.4
The volume of the final solution of the KMSB, ml	3.5	2.5	7	6.5
Concentration of KMSB in the final solution, mM	230	220	240	270