

Supplementary materials:

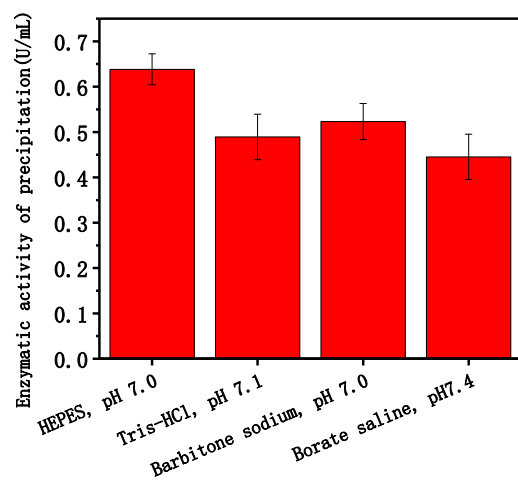


Fig. S1 Effect of different buffers on the adsorption of dextranase onto Mg/Fe-LDH

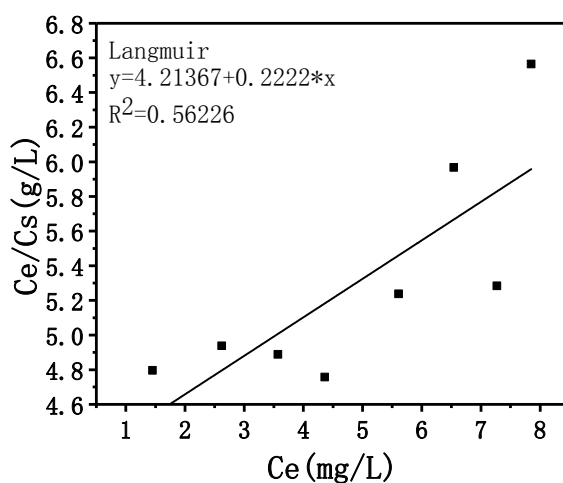


Fig. S2 Modeling according to Langmuir equation

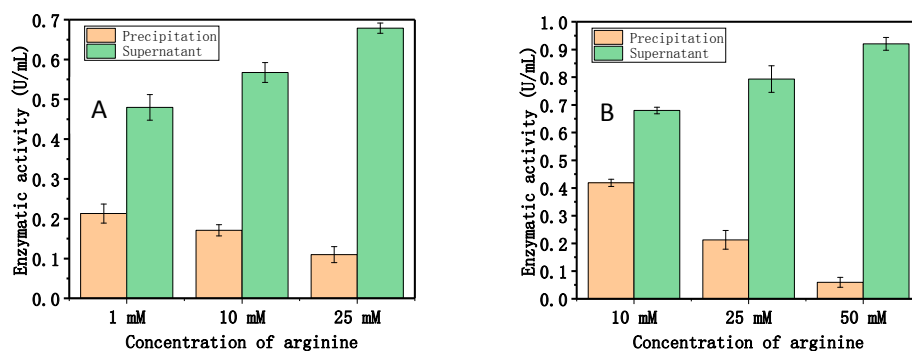


Fig. S3 Effects of arginine on the adsorption(A) and elution of dextranase(B)

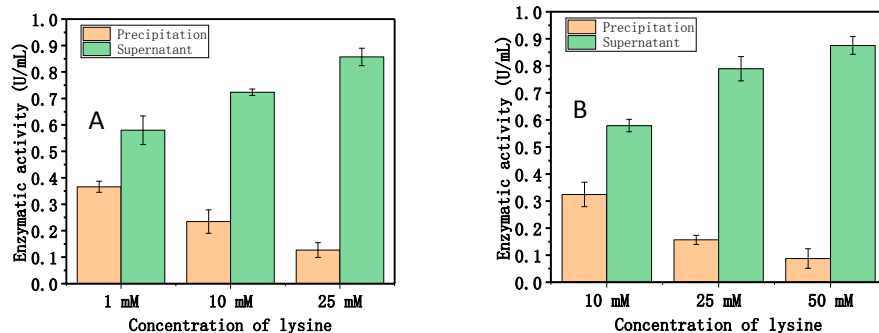


Fig. S4 Effects of lysine on the adsorption(A) and elution of dextranase(B)

The sequence of amino acids of dextranase from *A. Oxydans* KQ11:

MPGTGLRGLAKRMTAAAAVFLISSGAVLPAQAATTAGHTPSTAPAAPTDKHAITADNGNLH
 TWWHDNAVFNNTTGPTGNDEVRRSSFYDLQVAQENQPKAYDAFTYMSIPRSGDKKIGYTKED
 GAEFSSQAGLTMSWSSFYAKDVWVDVSLRTGQTITSADQVQIRPSSYNFEKQLVDADTVKIKVP
 YSDAGYRFSVEFEPQLYTAYNDSGDSGKLTTEAEGNRAIHTEPRNSMMIFAEPKLRGEQKERL
 VPTEESGSIHYPAEGEVTNLNAVTEIIYFKPGTYSMGSDYHAVLPPNVKWVYLAPGAYVKGAF
 RFLHDNQSQYKVTGYGVLSGEQYVYEADTNNNNYHLSGASNCHSSCVKMLQFASADAEQKLD
 LQGVTVAEPPYHSFVVYGNEQTFHNMVENYKQVGSWYWQTDGIELYKGSTMKNTFFNANDD
 VLKMYHSDVTIDNTVIWKNENGPVIQWGWTPRNIDNVNVTNTTVIHNRMYWKDVKYNTCIL
 NSSSHWEDMGSTTKADPNTTVKNMRFENITVEGMTNCAIRVYALSDTENIHVKNLNIDAWNG
 LDWTSQVSHLKRYTNPAGEKVTIGNEIPDGNGLALENYSVGGEVIEKTADNWADHQLGRIGFD
 GENWNSWNAWRTPQ

Table S1 The classification of amino acids in the protein sequence of dextranase

Name	Number	Classification
Histidine	16	Cationic AAs
Arginine	17	Cationic AAs
Lysine	30	Cationic AAs
Alanine	51	Hydrophobic AAs
Methionine	16	Hydrophobic AAs
Leucine	32	Hydrophobic AAs
Proline	27	Hydrophobic AAs
Valine	45	Hydrophobic AAs
Tyrosine	32	Hydrophobic AAs
Phenylalaine	30	Hydrophobic AAs
Isoleucine	27	Hydrophobic AAs
Asparagine	51	Hydrophobic AAs
Tryptophane	18	Hydrophobic AAs
Other AAs	259	
Total	641	