**Supporting**



**Fig. s1** Full radiochemical purity data of 131I-EM@ALA in PBS (**a**) and FBS (**b**).



**Fig. s2** SPECT/CT imaging (**left**) and distribution (**right**) study were performed at 24 hours after injection of 131I-EM@ALA injection.



**Fig. s3** Cerenkov radiation imaging with different concentration of 131I without PpIX



**Fig. s4** Cerenkov radiation imaging in different kinds of solutions with different filters