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研究简报

新型脑受体显像剂^{99m}Tc- Memantine的制备及药盒化

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摘要　合成了 N-[2-(N-(2-巯基乙基))氨基甲酰甲基]-N-(2-巯基乙基)- 3，5-二甲基金刚烷胺基乙酰胺（II N2S2- Memantine），对其进行99mTc标记。用氟化亚锡作还原剂，与高锝酸钠盐溶液反应，生成的新型脑受体显像剂I 99mTc（V）- Memantine，优化标记条件，进一步研制了无菌99mTc（V）- Memantine一步法冻干药盒。薄层色谱（TLC）对标记物进行质控，检测标记物的体外稳定性。结果显示，标记物的放化纯度〉95%，稳定性好，有望成为一种新型脑受体显像剂。

关键词　锝标记　美金刚胺　双氨基乙硫醇类　脑受体　显像剂

分类号

Preparation of 99mTc-Memantine as a Novel Brain Receptor Imaging Agent and Its Lyophilized Kit

Abstract The precursor of compound II N2S2-Memantine was synthesized. N2S2-Memantine was labeled with 99mTc by using stannous fluoride as reducing agent， and the labeling conditions of I 99mTc（V）- Memantine were optimized， and lyophilized kit of 99mTc（V）- Memantine was also developed. The labeling yields in excess of 90% and radiochemical purity more than 95% by the TLC analyses. The product was good stability in room temperature. 99mTc（V）- Memantine would be a potential brain receptor imaging agent which would need more research work.

Key words 99mTc labeling　memantine　bis(aminoethanethiol) analog　brain receptor　imaging agent

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