A substance contain phospholipase C gamma and an epidermal growth factor receptor for preventing or treat hypertension

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Technology description

The invention contains phospholipase C gamma and inhibitory epidermal growth factor receptor for preventing or treating hypertension.
A substance containing phospholipase C gamma and inhibiting epidermal growth factor receptors for the prevention or treatment of hypertension. In one embodiment, phospholipase C gamma preferably uses U73122 (1-[6-[(17 β)-3) methoxyestra-
1, 3, 5 (10)-trien-17-yl] amino] hexyl]-1H-pyrrole-2, 5 Dione (C29H40N2O3) or neomycin (C23H46N6O13.. 3H2SO4). In terms of the method of preventing or treating hypertension or identifying vasodilator compounds, phospholipase C gamma is in contact with at least one of the above mentioned test compounds, and whether phospholipase C gamma activity is reduced. If activity is reduced, methods can be provided to prevent or treat hypertension or to identify vasodilator compounds.
According to the invention, it can be learned that the inventor can inhibit the phenomenon of calcium current by patch clamp and pharmacological blocker test of, EGFR tyroinse phosphorylation selective blocker and PLC γ blocker. The activation of EGFR and PLC γ was initiated by Western blotting, cell membrane. On this basis, selective blockers such as AG1478 or PLC γ blockers such as eomycins, U73122 can effectively block the increase of calcium current in vascular smooth muscle, which can be effectively used in the development of agents for the treatment of hypertension. Neomycin and U73122 were not selective PLC γ blockers, but PLC β was also blocked. In the future, the research and development of selective blockers for vascular PLC γ will point out the direction for the development of drugs for the treatment of hypertension. As a result, the researchers believe that blocking EGFR tyrosine phosphate enzymes and PLC gamma can inhibit excessive vascular atrophy. They think it is possible to develop drugs or vasodilators that are more effective in treating hypertension than the calcium channel blockers that are now on the market.

Application area

Treatment of hypertension, vasodilatation,

Institution

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