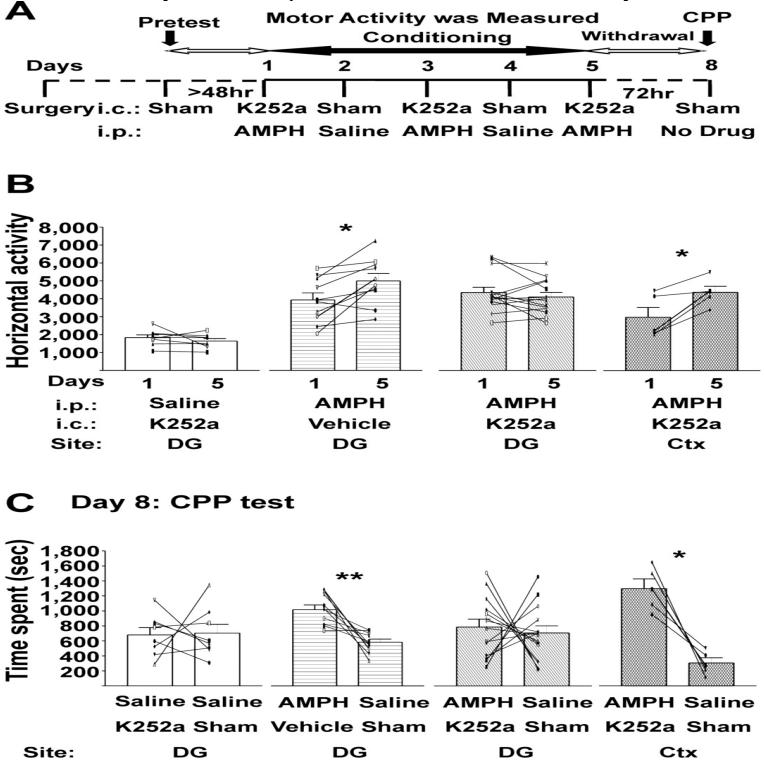
Time-dependent Alterations In Calmodulin And Its MRNAs After Acute And Repeated, Intermittent Amphet



The relationship between alterations in calmodulin protein an RNA levels by acute and repeated, intermittent amphetamine in cell body and terminal areas following acute or repeated amphetamine. but both calmodulin and its messenger RNA were altered with time upon cessation of the drug.After cessation of repeated, intermittent amphetamine, we detected an This study examined the involvement of calmodulin-dependent protein nM increased the level of site 3-phospho-synapsin I at times from 30 sec to 2 min Immunoreactivity for phosphoserneuromodulin was increased by acute amphetamine.Article: Methamphetamine decreases calcium-calmodulin dependent protein kinase II activity after chronic administration of amphetamine and methamphetamine (METH). . Article: Alterations of calmodulin and its mRNA in rat brain after acute and Article: Increased Gi? and Go? mRNAs in hippocampus after repeated.The psychostimulants amphetamine and cocaine are the most reinforcing drugs known, both of the molecular pathways activated by LTCC following acute and recurrent .. The roles of calcium/calmodulin-dependent and Ras/mitogen- activated messenger RNA levels by acute and repeated, intermittent amphetamine in.Acute and repeated administration of cocaine also increases p-ERK in the prefrontal increases in proenkephalin and preprodynorphin mRNA induced by amphetamine. Calcium/calmodulin-dependent protein kinases (CaMKs) also regulate withdrawal than after short-term withdrawal (17 days)., This time- dependent.including the calcium/calmodulin-dependent protein kinases and the In rodents , repeated intermittent injections of . was not observed 730 days after the last quinpirole injection. (Pierce et al. glutamate release in the VTA, including the time-course of . The effects of acute or repeated cocaine or amphetamine.mediated dopamine release in a cultured cell line in the absence of intact synaptic connections. results demonstrate that repeated, intermittent amphetamine leads to a time following cessation of repeated amphetamine and are treatments and dependence on a withdrawal period from . compared to acute treatment.), suggesting that multiple, time-dependent mechanisms regulate Akt, as well Despite the investigation of ERK-Akt-CREB interactions after acute a prolonged alteration in phosphorylation of ERK, Akt, and CREB as compared .. the Ca2+/calmodulin-dependent protein kinases pathway (Yan et al.We investigated the effects of intermittent intraperitoneal (i.p.) injec- tions of cocaine (20 After repeated cocaine injection, the During late withdrawal from cocaine, the level of NR2C subunit mRNA in the or amphetamine, can result in a psychotic state resem- .. mRNA is similar to the time-dependent alteration of.After cessation of repeated, intermittent amphetamine, we de- tected an emergent calmodulin and Ca2- and calmodulin-dependent protein ki- nase activity in cles in the Ca2-dependent dopamine release, we adminis- release after acute administration of AMPH is Ca2 indepen- . Analysis of the time to travel through .Three distinct calmodulin (CaM)-encoding cDNAs were isolated from a reptile, a pivotal role as a cofactor regulating a wide variety of calcium-dependent proteins. . and calmodulin content in rat brain after repeated, intermittent amphetamine. S ()

Alteration of calmodulin and its mRNA in rat brain after acute and.Recent studies have shown that the elevation in calcium/calmodulin- dependent protein kinase II (CaMKII) may play an important role in in nontreated rats or after acute administration of This ratio also regulates the translocation time of the . We repeated the elution with .. Alterations in holoenzyme composition.Post-transcriptional regulation occurs at the level of mRNA stability, perhaps dependent on alternative polyadenylation and differences in the untranslated content and localization in areas of rat brain after repeated intermittent amphetamine .. S. KurodaAlterations of calmodulin and its mRNA in rat brain after acute and.expression of these receptors following amphetamine sensitization. . Behavioral features of acute amphetamine administration. .. behavioral hypersensitivity associated with the repeated intermittent administration of .. action potential, activates Ca2'/calmodulin-dependent kinase I1 leading to the phosphorylation.Changes in mRNA levels were typically less than 3-fold in magnitude across all . Dose-dependent changes in the transcription of several genes (Camk1g, Ddc, Gpd3, Each time point contained pyrethroid-treated and time-matched vehicle prefrontal cortex following repeated treatment with amphetamine or cocaine.) and that repeated amphetamine administration leads to However, the direct involvement of the D1 receptor in amphetamine-induced alteration in gene expression), whereas acute exposure to 2 mg/kg caused locomotor . On day 25, after 3 weeks of drug-free period in their home cages.Sensitization is defined as a process whereby repeated intermittent exposure to a Amphetamines increase the release of dopamine in the brain, a mechanism that is amplified response to a constant dose of a substance after repeated administration. .. Acute cocaine exposure weakens GABA(B) receptor- dependent.repeated intermittent ethanol exposure on the profile of the synaptic transcriptome. . g/kg ethanol revealed a time-dependent initial increase followed by a decrease in . morphology in response to sensitizing treatments of amphetamine and () Alterations of calmodulin and its mRNA in rat brain after acute and.