

Nitric Oxide Nitric oxide (NO) has also been reported to be involved in ketamine's antidepressant effects.

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The antidepressant Action of Ketamine 137 In addition, ketamine treatment increased the activity of Drd1+ neurons in the mPFC, with chemogenetic activation of Drd1+ neurons in the mPFC relieving the helpless behavior. Similarly, depletion of serotonin by injecting p-chlorophenyl alanine, a serotonin synthesis enzyme inhibitor, abolished the antidepressant effects of ketamine, although the effect depended on the study condition (31, 96).