

## People also ask

Is aripiprazole serotonergic?



Among **serotonergic** receptors, aripiprazole has very high and high affinity at 5-HT1A (5-HT1AR), 5-HT2A (5-HT2AR), 5-HT2B (5-HT2BR), and 5-HT7 (5-HT7R) receptors [36].

Sep 7, 2015

<https://www.ncbi.nlm.nih.gov/articles/PMC4602118>

## Update on the Mechanism of Action of Aripiprazole - NCBI

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Does Abilify increase or decrease serotonin?



Does Abilify cause serotonin syndrome?



Is Abilify a serotonin agonist?



Does Abilify release dopamine?



Is Abilify activating?



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## *Schizoaffective Disorder vs Schizophrenia*

Comparing schizoaffective disorder vs schizophrenia is important. Far too often, people lump these mental disorders together. In reality, they're completely different disorders that cause different symptoms.

For example, people who have schizophrenia have a hard time telling the difference between reality and fiction. They might see or hear voices that aren't really there. To them, the voices and imagery are as real as it comes. However, others can't see nor hear these nonexistent things.

With schizoaffective disorder, people feel detached from reality. While it makes them see or hear things that aren't there, it also affects their mood a great deal. In fact, two common types of schizoaffective disorder are bipolar and depressive disorders.

With that said, it's important to note that these disorders share some other symptoms. However, they're still completely different and often require different treatments.

# Update on the Mechanism of Action of Aripiprazole: Translational Insights into Antipsychotic Strategies Beyond Dopamine Receptor Antagonism

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Published online: 7 September 2015

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**Abstract** Dopamine partial agonism and functional selectivity have been innovative strategies in the pharmacological treatment of schizophrenia and mood disorders and have shifted the concept of dopamine modulation beyond the established approach of dopamine D2 receptor (D2R) antagonism. Despite the fact that aripiprazole was introduced in therapy more than 12 years ago, many questions are still unresolved regarding the complexity of the effects of this agent on signal transduction and intracellular pathways, in part linked to its pleiotropic receptor profile. The complexity of the mechanism of action has progressively shifted the conceptualization of this agent from partial agonism to functional selectivity. From the induction of early genes to modulation of scaffolding proteins and activation of transcription factors, aripiprazole has been shown to affect multiple cellular pathways and several cortical and subcortical neurotransmitter circuitries. Growing evidence shows that, beyond the consequences of D2R occupancy, aripiprazole has a unique neurobiology among available antipsychotics. The effect of chronic administration of aripiprazole on D2R affinity state and number has been especially highlighted, with relevant translational implications for long-term treatment of psychosis. The hypothesized effects of aripiprazole on cell-protective mechanisms and neurite growth, as well as the differential effects on intracellular pathways [i.e. extracellular signal-regulated kinase (ERK)] compared with full D2R antagonists, suggest further exploration of these targets by

novel and future biased ligand compounds. This review aims to recapitulate the main neurobiological effects of aripiprazole and discuss the potential implications for upcoming improvements in schizophrenia therapy based on dopamine modulation beyond D2R antagonism.

## Key Points

The atypical antipsychotic aripiprazole has a unique pharmacological profile that provides ‘adaptive’ pharmacological activity.

Depending on endogenous dopamine levels and signaling status, aripiprazole may act as a full antagonist, a moderate antagonist, or a partial agonist at dopamine D2 receptors (D2Rs), consistent with purported biased ligand pharmacology.

The efficacy of aripiprazole can be mainly attributed to this combination of partial agonism/antagonism at D2Rs and serotonin 5-HT<sub>1A</sub> receptors, together with antagonism at serotonin 5-HT<sub>2A</sub> receptors.

However, the receptor profile of the compound is much more complex, and animal models have shown that aripiprazole affects multiple cellular pathways and several cortical and subcortical neurotransmitter circuitries and has an impact on gene expression distinct from other antipsychotics.

Based on the pharmacological and functional characteristics of aripiprazole, a number of new dopaminergic biased ligands are emerging as potential candidates for the treatment of psychosis, potentially improving the ‘dopamine modulation’ features of the prototypical compound.

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