

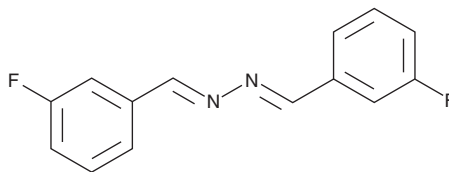
# PRODUCT INFORMATION



## DFB

Item No. 34395

**CAS Registry No.:** 15332-10-2  
**Formal Name:** 2-[(3-fluorophenyl)methylene]hydrazone, 3-fluoro-benzaldehyde  
**Synonym:** 3,3'-Difluorobenzaldazine  
**MF:** C<sub>14</sub>H<sub>10</sub>F<sub>2</sub>N<sub>2</sub>  
**FW:** 244.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 300, 312 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

DFB is supplied as a solid. A stock solution may be made by dissolving the DFB in the solvent of choice, which should be purged with an inert gas. DFB is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DFB in these solvents is approximately 1 and 30 mg/ml, respectively.

### Description

DFB is a positive allosteric modulator of metabotropic glutamate receptor 5 (mGluR5).<sup>1</sup> It potentiates glutamate-, quisqualate-, or 3,5-dihydroxyphenylglycine-induced calcium transients in CHO cells expressing human mGluR5 (EC<sub>50</sub>s = 0.021, 0.642, and 2.4 μM, respectively). It also enhances quisqualate-induced phosphatidylinositol hydrolysis in rat hippocampal slices (EC<sub>50</sub> = 0.42 μM). DFB improves spatial alternation retention in the Y-maze special alternation task in rats.<sup>2</sup>

### References

1. O'Brien, J.A., Lemaire, W., Chen, T.-B., *et al.* A family of highly selective allosteric modulators of the metabotropic glutamate receptor subtype 5. *Mol. Pharmacol.* **64**(3), 731-740 (2003).
2. Balschun, D., Zuschratter, W., and Wetzel, W. Allosteric enhancement of metabotropic glutamate receptor 5 function promotes spatial memory. *Neuroscience* **142**(3), 691-702 (2006).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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