

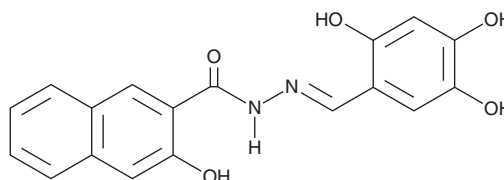
# PRODUCT INFORMATION



## Dyngo-4a

Item No. 29479

**CAS Registry No.:** 1256493-34-1  
**Formal Name:** 3-hydroxy-2-naphthalenecarboxylic acid, 2-[(2,4,5-trihydroxyphenyl)methylene]hydrazide  
**MF:** C<sub>18</sub>H<sub>14</sub>N<sub>2</sub>O<sub>5</sub>  
**FW:** 338.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 223, 290, 367 nm  
**Supplied as:** A crystalline 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

Dyngo-4a is supplied as a crystalline solid. A stock solution may be made by dissolving the dyngo-4a in the solvent of choice, which should be purged with an inert gas. Dyngo-4a is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of dyngo-4a in these solvents is approximately 30 mg/ml.

Dyngo-4a is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, dyngo-4a should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Dyngo-4a has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Dyngo-4a is an inhibitor of dynamin with IC<sub>50</sub> values of 380 and 2,300 nM for native sheep brain dynamin 1 and recombinant rat dynamin 2, respectively.<sup>1</sup> It inhibits dynamin 1 helix formation induced by L-phosphatidylserine (PS) liposomes (IC<sub>50</sub> = 0.38 μM) more potently than dynamin 1 single-ring formation induced by Grb2 (IC<sub>50</sub> = 39.2 μM) and does not inhibit the basal GTPase activity of dynamin.<sup>1,2</sup> Dyngo-4a inhibits non-neuronal clathrin-mediated (IC<sub>50</sub> = 5.7 μM in U2OS cells) and synaptic vesicle endocytosis (IC<sub>50</sub> = 26.8 μM in rat brain synaptosomes).<sup>1</sup>

### References

1. McCluskey, A., Daniel, J.A., Hadzic, G., *et al.* Building a better dynasore: The dyngo compounds potently inhibit dynamin and endocytosis. *Traffic* **14**(12), 1272-1289 (2013).
2. Mohanakrishnan, A., Tran, T.V.M., Kumar, M., *et al.* A highly-sensitive high throughput assay for dynamin's basal GTPase activity. *PLoS One* **12**(9), e0185639 (2017).

#### 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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