

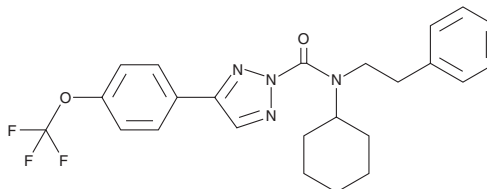
# PRODUCT INFORMATION



## KLH45

Item No. 19889

**CAS Registry No.:** 1632236-44-2  
**Formal Name:** N-cyclohexyl-N-(2-phenylethyl)-4-[4-(trifluoromethoxy)phenyl]-2H-1,2,3-triazole-2-carboxamide  
**MF:** C<sub>24</sub>H<sub>25</sub>F<sub>3</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 458.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 206, 262 nm  
**Supplied as:** A 10 mg/ml solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

KLH45 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. The solvent DMSO purged with an inert gas can be used at a concentration of approximately 30 mg/ml.

### Description

KLH45 is an inhibitor of the phospholipase DDHD domain containing 2 (DDHD2; IC<sub>50</sub> = 1.3 nM).<sup>1</sup> It is selective for DDHD2 over greater than 50 serine hydrolases, including DDHD1 and Sec23ip, but does inhibit α/β-hydrolase domain-containing protein 6 (ABHD6). It inhibits DDHD2 and ABHD6 in Neuro2A cells when used at a concentration of less than 10 nM and inhibits DDHD2 by greater than 95% at a concentration of 25 nM. KLH45 (2 μM) prevents increases in triacylglycerol (TAG) hydrolase activity in HEK293T cell lysates expressing recombinant DDHD2 and incubated with a radiolabeled TAG substrate. It decreases TAG levels in the CNS of mice when administered at a dose of 20 mg/kg twice per day for four days. KLH45 (2 μM) also reverses DDHD2-induced lipid droplet reduction in COS-7 cells expressing recombinant DDHD2 and loaded with oleic acid.<sup>2</sup>

### References

1. Inoles, J.M., Hsu, K.L., Dix, M.M., *et al.* The hereditary spastic paraplegia-related enzyme DDHD2 is a principal brain triglyceride lipase. *Proc. Natl. Acad. Sci. USA* **111**(41), 14924-14929 (2014).
2. Inloes, J.M., Kiosses, W.B., Wang, H., *et al.* Functional contribution of the spastic paraplegia-related triglyceride hydrolase DDHD2 to the formation and content of lipid droplets. *Biochemistry* **57**(5), 827-838 (2018).

#### 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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