

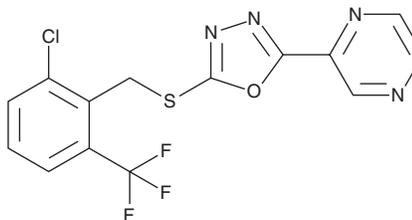
# PRODUCT INFORMATION



## Yaddle1

Item No. 43431

**CAS Registry No.:** 3041134-13-5  
**Formal Name:** 2-[5-[[[2-chloro-6-(trifluoromethyl)phenyl]methyl]thio]-1,3,4-oxadiazol-2-yl]-pyrazine  
**MF:** C<sub>14</sub>H<sub>8</sub>ClF<sub>3</sub>N<sub>4</sub>OS  
**FW:** 372.8  
**Purity:** ≥98%  
**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

Yaddle1 is supplied as a solid. A stock solution may be made by dissolving the Yaddle1 in the solvent of choice, which should be purged with an inert gas. Yaddle1 is slightly soluble (0.1-1 mg/ml) in DMSO.

### Description

Yaddle1 is an agonist of Piezo1 and a derivative of Yoda1 (Item No. 21904).<sup>1</sup> It induces calcium influx in a reporter assay using HEK293A cells expressing human Piezo1 (EC<sub>50</sub> = 0.4 μM). Yaddle1 (15 μM) induces calcium influx in primary human CD4<sup>+</sup> T cells, which express Piezo1, and does not decrease the viability of isolated human peripheral blood mononuclear cells (PBMCs) when used at a concentration of 20 μM. It also induces activation of protein kinase D (PKD) in primary human aortic endothelial cells in a Piezo1-dependent manner.<sup>2</sup>

### References

1. Goon, S., Shiu Chen Liu, C., Ghosh Dastidar, U., *et al.* Exploring the structural attributes of Yoda1 for the development of new-generation Piezo1 agonist Yaddle1 as a vaccine adjuvant targeting optimal T cell activation. *J. Med. Chem.* **67**(10), 8225-8246 (2024).
2. Lone, M., Singh, P., Sinnott-Smith, J., *et al.* Activation of the Piezo1 channel stimulates protein kinase D and migration in human aortic endothelial cells. *Am. J. Physiol. Cell Physiol.* **Online ahead of print**, (2025).

#### 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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