

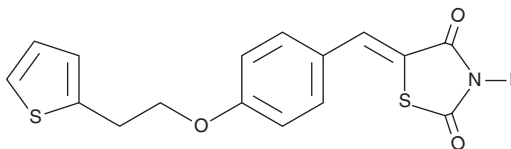
# PRODUCT INFORMATION



**CAY10638**

Item No. 13695

**CAS Registry No.:** 1221413-57-5  
**Formal Name:** 5-[[4-[2-(2-thienyl)ethoxy]phenyl]methylene]-2,4-thiazolidinedione  
**Synonym:** Thiazolidinedione derivative  
**MF:** C<sub>16</sub>H<sub>13</sub>NO<sub>3</sub>S<sub>2</sub>  
**FW:** 331.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 234, 343 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

CAY10638 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10638 in the solvent of choice, which should be purged with an inert gas. CAY10638 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CAY10638 in these solvents is approximately 25 and 30 mg/ml, respectively.

CAY10638 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10638 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CAY10638 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Prostaglandins have a short life *in vivo* because NAD<sup>+</sup>-dependent 15-hydroxy prostaglandin dehydrogenase (15-PGDH) catalyzes their oxidation to 15-keto metabolites with greatly reduced biological activity.<sup>1</sup> Thiazolidinediones (TZDs) are a class of PPAR $\gamma$  agonists that have potent 15-PGDH inhibitory activity.<sup>2,3</sup> CAY10638 is a TZD derivative that inhibits 15-PGDH activity with an IC<sub>50</sub> value of 31 nM.<sup>3</sup>

## References

1. Hansen, H.S. 15-Hydroxyprostaglandin dehydrogenase. A review. *Prostaglandins* **12(4)**, 647-679 (1976).
2. Owens, D.R. Thiazolidinediones. An pharmacological overview. *Clin. Drug Investig.* **22(8)**, 485-505 (2002).
3. Wu, Y., Tai, H.H., and Cho, H. Synthesis and SAR of thiazolidinedione derivatives as 15-PGDH inhibitors. *Bioorg. Med. Chem.* **18(4)**, 1428-1433 (2010).

### 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.

### WARRANTY AND LIMITATION OF REMEDY

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