

## Product Data Sheet

Product Name: SR 2595  
 Cat. No.: GC16488

### Chemical Properties

Cas. No. 1415252-61-7

Chemical Name 4'-[[5-[[[(1S)-1-[4-(1,1-dimethylethyl)phenyl]ethyl]amino]carbonyl]-2,3-dimethyl-1H-indol-1-yl]methyl]-[1,1'-biphenyl]-2-carboxylic acid

SMILES CC(N1CC2=CC=C(C3=CC=CC=C3C(O)=O)C=C2)=C(C)C4=C1C=CC(C(N[C@@H](C)C5=CC=C(C(C)(C)C)C=C5)=O)=C4

Formula  $C_{37}H_{38}N_2O_3$  M.Wt 558.7

Solubility  $\leq 5$ mg/ml in ethanol; 10mg/ml in DMSO; 10mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

IC50: 30 nM

SR 2595 is an inverse agonist of PPAR $\gamma$ .

The nuclear receptor peroxisome proliferator-activated receptor gamma (PPAR $\gamma$ ) is the key regulator of adipogenesis and the pharmacological target of the thiazolidinedione class of insulin sensitizers. Activation of PPAR $\gamma$  by thiazolidinediones can promote adipogenesis at the expense of osteoblast formation.

In vitro: SR 2595 was identified as an inverse agonist of PPAR $\gamma$  that repressed both transactivation and expression of the adipogenic marker fatty acid-binding protein 4 in differentiating murine preadipocytes. Moreover, the repression of PPAR $\gamma$  with SR 2595 promoted osteogenesis in cultured human mesenchymal stem cells (MSCs), as demonstrated by calcium phosphatase deposition. In addition, SR 2595 could also increase

**Caution: Product has not been fully validated for medical applications. For research use only.**

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the expression of bone morphogenetic proteins BMP2 and BMP6 in MSCs [1].

In vivo: To determine whether pharmacological PPAR $\gamma$  repression would impair insulin sensitivity, SR2595 was administered chronically to lean C57BL/6J mice. The PK properties of SR2595 were sufficient to support once daily oral dosing at 20 mg/kg. Lean C57BL/6J mice treated with SR2595 showed no significant change in insulin sensitivity as measured by insulin tolerance test, nor fasting insulin levels. In addition, no change in food consumption or body weight was observed during the treatment period [1].

Clinical trial: So far, no clinical study has been conducted.

Reference:

[1] Marciano, D. P., Kuruvilla, D.S., Boregowda, S.V., et al. Pharmacological repression of PPAR $\gamma$  promotes osteogenesis. Nature Communications 6, 1-7 (2015).

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