

# **Data Sheet**

Product Name: Ranirestat

Cat. No.: CS-4282

CAS No.: 147254-64-6

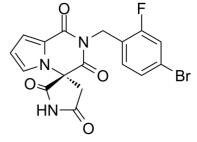
Molecular Formula: C17H11BrFN3O4

Molecular Weight: 420.19

Target: Aldose Reductase

Pathway: Metabolic Enzyme/Protease

**Solubility:** DMSO :  $\geq$  50 mg/mL (118.99 mM)



## **BIOLOGICAL ACTIVITY:**

Ranirestat (AS-3201) is an aldose reductase inhibitor being developed for the treatment of diabetic neuropathy.

# References:

- [1]. Kurono M, et al. Stereospecific recognition of a spirosuccinimide type aldose reductase inhibitor (AS-3201) by plasma proteins: a significant role of specific binding by serum albumin in the improved potency and stability. Biochem Pharmacol. 2006 Jan 12;71(3):338-53.
- [2]. Matsumoto T, et al. Improvement of motor nerve conduction velocity in diabetic rats requires normalization of the polyol pathway metabolites flux. J Pharmacol Sci. 2009 Feb;109(2):203-10.
- [3]. Toyoda F, et al. Effect of ranirestat, a new aldose reductase inhibitor, on diabetic retinopathy in SDT rats. J Diabetes Res. 2014;2014:672590.

#### **CAIndexNames**:

Spiro[pyrrolidine-3,4'(1'H)-pyrrolo[1,2-a]pyrazine]-1',2,3',5(2'H)-tetrone, 2'-[(4-bromo-2-fluorophenyl)methyl]-, (3R)-

## **SMILES:**

O = C(N1CC2 = CC = C(Br)C = C2F)C3 = CC = CN3[C@]4(C(NC(C4) = O) = O)C1 = O

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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