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**Product Data Sheet**

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Product Name: (S)-SLV 319

Cat. No.: GC10753

**Chemical Properties**

Cas. No. 464213-10-3

Chemical Name 3-(4-chlorophenyl)-N-[(4-chlorophenyl)sulfonyl]-4,5-dihydro-N'-methyl-4S-phenyl-1H-pyrazole-1-carboximidamide

SMILES C/N=C(\NS(=O)(=O)c1ccc(Cl)cc1)/N1N=C(c2ccc(Cl)cc2)C(C1)c1ccccc1Formula  $C_{23}H_{20}Cl_2N_4O_2S$  M.Wt 487.4Solubility  $\leq 30\text{mg/ml}$  in ethanol;  $30\text{mg/ml}$  in DMSO;  $30\text{mg/ml}$  in dimethyl formamide Storage Store at  $-20^\circ\text{C}$ General tips For obtaining a higher solubility, please warm the tube at  $37^\circ\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^\circ\text{C}$  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**

Ki: 7.8 and 7.9 nM for CB1 and peripheral cannabinoid (CB2), respectively

(S)-SLV 319 is a CB1 receptor antagonist.

It has been reported that central cannabinoid (CB1) receptor antagonists may have potential in the treatment of a variety of diseases including cognitive disorders, neuro-inflammatory disorders, obesity, septic shock, psychosis, addiction, as well as gastrointestinal disorders.

In vitro: Previous study found that (S)-SLV 319 was a potent and selective CB1 receptor antagonist with Ki values of 7.8 and 7.9 nM for CB1 and CB2, respectively. In addition, (S)-SLV 319 was found to be less lipophilic and thus more water soluble than other previously identified ligands of CB1 receptor [1].

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

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In vivo: Previous animal study showed that in rats exposed to an ambient temperature of 22°C, a moderate dose of LPS at 25 - 100 µg/kg could induce a fall in body temperature. Such response was not affected by desensitization of intra-abdominal TRPV1 receptors with resiniferatoxin at 20 µg/kg, by systemic TRPV1 antagonism with capsazepine at 40 mg/kg, or by systemic CB2 receptor antagonism with SR144528 at 1.4 mg/kg. In contrast, CB1 receptor antagonism by SLV319 at 15 mg/kg or rimonabant at 4.6 mg/kg was able to block LPS caused hypothermia [2].

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

### References:

- [1] J. H. M. Lange, H. H. van Stuivenberg, W. Veerman, et al. Novel 3,4-diarylpyrazolines as potent cannabinoid CB1 receptor antagonists with lower lipophilicity. *Bioorganic & Medicinal Chemistry Letters* 15, 4794-4798 (2005).
- [2] Steiner AA et al. The hypothermic response to bacterial lipopolysaccharide critically depends on brain CB1, but not CB2 or TRPV1, receptors. *J Physiol*. 2011 May 1;589(Pt 9):2415-31.

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