

# Product data sheet



MedKoo Cat#: 319665 Name: Asapiprant CAS#: 932372-01-5 Chemical Formula: C <sub>24</sub> H <sub>27</sub> N <sub>3</sub> O <sub>7</sub> S Exact Mass: 501.1570 Molecular Weight: 501.55	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

Asapiprant, also known as S-555739, is a the potent and selective DP1 receptor antagonist. Asapiprant exhibited high affinity and selectivity for the DP1 receptor. Significant suppression of antigen-induced nasal resistance, nasal secretion, and cell infiltration in nasal mucosa was observed with asapiprant treatment. In addition, treatment with asapiprant suppressed antigen-induced asthmatic responses, airway hyper-responsiveness, and cell infiltration and mucin production in lung. These results show that asapiprant is a potent and selective DP1 receptor antagonist, and exerts suppressive effects in the animal models of allergic diseases. Thus, asapiprant has potential as a novel therapy for allergic airway diseases.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	7.06	14.08
DMF	10.0	19.94
DMF:PBS (pH 7.2) (1:5)	0.16	0.32

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.99 mL	9.97 mL	19.94 mL
5 mM	0.40 mL	1.99 mL	3.99 mL
10 mM	0.20 mL	1.00 mL	1.99 mL
50 mM	0.04 mL	0.20 mL	0.40 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Takahashi G, Asanuma F, Suzuki N, Hattori M, Sakamoto S, Kugimiya A, Tomita Y, Kuwajima G, Abraham WM, Deguchi M, Arimura A, Shichijo M. Effect of the potent and selective DP1 receptor antagonist, asapiprant (S-555739), in animal models of allergic rhinitis and allergic asthma. *Eur J Pharmacol.* 2015 Oct 15;765:15-23. doi: 10.1016/j.ejphar.2015.08.003. Epub 2015 Aug 12. PMID: 26277322.

## 7. Bioactivity

Biological target: Asapiprant is a DP1 receptor antagonist with a Ki of 0.44 nM.

# Product data sheet



In vitro activity

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TBD

In vivo activity

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In the animal models of allergic rhinitis, changes in nasal resistance, nasal secretion, and cell infiltration in nasal mucosa were assessed after antigen challenge with and without asapiprant. Similarly, in the animal models of asthma, the effect of antigen challenge with and without asapiprant on antigen-induced bronchoconstriction, airway hyper-responsiveness, mucin production, and cell infiltration in lung were assessed. Significant suppression of antigen-induced nasal resistance, nasal secretion, and cell infiltration in nasal mucosa was observed with asapiprant treatment. In addition, treatment with asapiprant suppressed antigen-induced asthmatic responses, airway hyper-responsiveness, and cell infiltration and mucin production in lung. These results show that asapiprant exerts suppressive effects in the animal models of allergic diseases.

Reference: Eur J Pharmacol. 2015 Oct 15;765:15-23.

<https://www.sciencedirect.com/science/article/abs/pii/S0014299915301795?via%3Dihub>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*