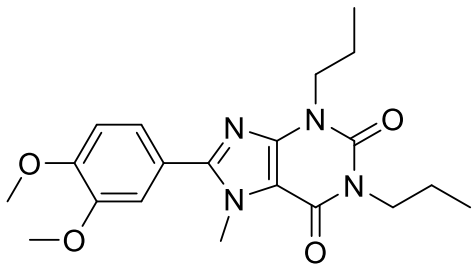
Product data sheet

MedKoo Cat#: 531999 Name: KF 17837S CAS: 152881-18-0 Chemical Formula: $C_{20}H_{26}N_4O_4$ Exact Mass: 386.1954 Molecular Weight: 386.452	
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:
KF 17837S is an adenosine A(2a) receptor antagonists, which is potential therapeutic and neuroprotective effects in Parkinson's disease.

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
TBD	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.59 mL	12.94 mL	25.88 mL
5 mM	0.52 mL	2.59 mL	5.18 mL
10 mM	0.26 mL	1.29 mL	2.59 mL
50 mM	0.05 mL	0.26 mL	0.52 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

1. Kurokawa M, Kirk IP, Kirkpatrick KA, Kase H, Richardson PJ. Inhibition by KF17837 of adenosine A2A receptor-mediated modulation of striatal GABA and ACh release. Br J Pharmacol. 1994 Sep;113(1):43-8. doi: 10.1111/j.1476-5381.1994.tb16171.x. PMID: 7812630; PMCID: PMC1510043.
2. Nonaka H, Ichimura M, Takeda M, Nonaka Y, Shimada J, Suzuki F, Yamaguchi K, Kase H. KF17837 ((E)-8-(3,4-dimethoxystyryl)-1,3-dipropyl-7-methylxanthine), a potent and selective adenosine A2 receptor antagonist. Eur J Pharmacol. 1994 May 17;267(3):335-41. doi: 10.1016/0922-4106(94)90159-7. PMID: 8088373.

In vivo study

1. Correa M, Wisniecki A, Betz A, Dobson DR, O'Neill MF, O'Neill MJ, Salamone JD. The adenosine A2A antagonist KF17837 reverses the locomotor suppression and tremulous jaw movements induced by haloperidol in rats: possible relevance to parkinsonism. Behav Brain Res. 2004 Jan 5;148(1-2):47-54. doi: 10.1016/s0166-4328(03)00178-5. PMID: 14684247.
2. Nonaka H, Mori A, Ichimura M, Shindou T, Yanagawa K, Shimada J, Kase H. Binding of [3H]KF17837S, a selective adenosine A2 receptor antagonist, to rat brain membranes. Mol Pharmacol. 1994 Nov;46(5):817-22. PMID: 7969067.

7. Bioactivity
Biological target:
KF 17837S is an adenosine A(2a) receptor antagonists.

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In vitro activity

The novel A2A receptor antagonist, (E)-8-(3,4-dimethoxystyryl)-1,3-dipropyl-7-methylxanthine (KF 17837), blocked the CGS 21680 (1 nM)-induced inhibition of [3H]-GABA efflux with an EC50 of approximately 30 nM and also antagonized the CGS 21680 (0.1 nM)-induced stimulation of [3H]-ACh release with an EC50 of approximately 0.3 nM.

Reference: Br J Pharmacol. 1994 Sep;113(1):43-8. https://pubmed.ncbi.nlm.nih.gov/7812630/

In vivo activity

Autoradiographic study of [3H]KF17837S binding using rat brain sections revealed that the binding site was highly enriched in the striatal region. These data indicate that [3H] KF17837S labels the adenosine A2A receptor in rat brain.

Reference: Mol Pharmacol. 1994 Nov;46(5):817-22. https://pubmed.ncbi.nlm.nih.gov/7969067/

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.