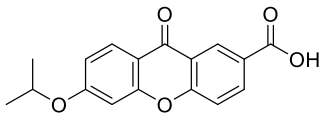
Product data sheet

MedKoo Cat#: 531431 Name: AH6809 CAS#: 33458-93-4 Chemical Formula: $C_{17}H_{14}O_5$ Exact Mass: 298.0841 Molecular Weight: 298.29	
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:
AH6809 is a DP/EP prostanoid receptor antagonist.

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	1	3.35
0.1 M Na2CO3	4	13.41
DMF	8	26.82
Ethanol	5	16.76
PBS (pH 7.2)	0.34	1.14

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	3.35 mL	16.76 mL	33.52 mL
5 mM	0.67 mL	3.35 mL	6.70 mL
10 mM	0.34 mL	1.68 mL	3.35 mL
50 mM	0.07 mL	0.34 mL	0.67 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

Senior J, Marshall K, Sangha R, Baxter GS, Clayton JK. In vitro characterization of prostanoid EP-receptors in the non-pregnant human myometrium. Br J Pharmacol. 1991 Mar;102(3):747-53. doi: 10.1111/j.1476-5381.1991.tb12244.x. PMID: 1285399; PMCID: PMC1917944.

In vivo study

Keery RJ, Lumley P. AH6809, a prostaglandin DP-receptor blocking drug on human platelets. Br J Pharmacol. 1988 Jul;94(3):745-54. doi: 10.1111/j.1476-5381.1988.tb11584.x. PMID: 2460179; PMCID: PMC1854016.

7. Bioactivity
Biological target:

AH 6809 is an antagonist at prostaglandin EP1 (pA2 = 6.8) and EP2 (Ki = 350 nM) receptors. Also weakly inhibits DP receptors (pA2 = 4.45).

Product data sheet

In vitro activity

2. All prostanoids tested were active in non-pregnant human myometrium either as stimulators and/or inhibitors of spontaneous activity or both. Biphasic responses to PGE2 indicate that at least two receptor types of the EP-receptor exist, one mediating relaxation and the other mediating contraction. 3. Further evidence for the EP-receptor mediating excitation and relaxation was provided by the action of the EP2-/EP3-receptor selective prostanoids rioprostil, AY23626 and misoprostol, and the EP1-/EP2-receptor selective agonist 16,16-dimethylprostaglandin E2. 4. Butaprost, an EP2-receptor selective agonist, produced potent inhibition of spontaneous activity in the tissue which was generally longer-lasting than that evoked by the natural prostanoid PGE2. 5. The EP1-/EP3-receptor selective agonist sulprostone and the EP3-receptor agonist enprostil produced potent contractile responses supporting the presence of contractile EP3-receptors in the non-pregnant human myometrium in vitro. 6. The EP1-/IP-receptor selective agonist, iloprost, produced mixed responses in non-pregnant human myometrium. The contractile response was inhibited by the EP1-receptor antagonist AH6809. However, responses to the EP1-/EP3-receptor selective agonist sulprostone were unaffected by AH6809 which may indicate that only a small population of EP1-receptors is present. 7. Therefore it would seem that a heterogeneous population of EP-receptors is present in the non-pregnant human myometrium.

Reference: Senior J, Marshall K, Sangha R, Baxter GS, Clayton JK. In vitro characterization of prostanoid EP-receptors in the non-pregnant human myometrium. Br J Pharmacol. 1991 Mar;102(3):747-53. doi: 10.1111/j.1476-5381.1991.tb12244.x. PMID: 1285399; PMCID: PMC1917944.

In vivo activity

The antagonism of the anti-aggregatory activity of PGD2 by AH6809 was concentration-related and could be overcome by increasing the concentration of PGD2. Analysis of the data yielded an apparent pA2 for AH6809 of 5.35. 4. At approximately 10 fold higher concentrations than those required to antagonize the action of PGD2, AH6809 also antagonized the aggregatory effect of U-46619 in whole blood (pA2 = 4.45). However, concentrations of AH6809 up to 300 microM were without effect upon either ADP- or platelet activating factor (Paf)-induced aggregation (pA2 less than 3.5). 5. The potency of AH6809 against PGD2 and U-46619 was increased in a resuspended platelet preparation suggesting that the drug is extensively bound to plasma proteins. However, in resuspended platelets the specificity of AH6809 relative to that seen in whole blood was reduced since aggregation by ADP and Paf was also slightly antagonized. 6. In conclusion, AH6809 appears to be a weak but specific DP-receptor blocking drug on human platelets and should prove to be a useful drug tool for defining the involvement of endogenous PGD2 in platelet aggregation and classifying the mode of action of anti-aggregatory prostanoids.

Reference: Keery RJ, Lumley P. AH6809, a prostaglandin DP-receptor blocking drug on human platelets. Br J Pharmacol. 1988 Jul;94(3):745-54. doi: 10.1111/j.1476-5381.1988.tb11584.x. PMID: 2460179; PMCID: PMC1854016.