SUPPLEMENTARY DATA

Synthesis of LMT497

N^6-(3-Iodobenzyl)-N-methyl-5-carbamoyladenosine (IB-MECA) as a potent A_3-receptor agonist was found to show potent in vivo antitumor activity and is now undergoing phase II clinical trials.[1,2] Another A_3-receptor agonist 2-chloro-N^6-(3-iodobenzyl)-N-methyl-5-carbamoyladenosine (Cl-IB-MECA) is also being used extensively as a pharmacological tool for studying the A_3-receptor.[1,2] Based on anti-ischemic activity of IB-MECA and Cl-IB-MECA, their ribose ring opened nucleosides were prepared to examine their anti-ischemic activity (Fig. 1). Novel seco-nucleosides with open ribose ring were tested for in vitro biochemical assays related to cortical neuronal/glial cells and microglial cells. ROS scavenging assay followed by in vivo animal model SD-Rat (male) was also studied.

Affinity Assay

In Parentheses are indicated the percentage of inhibition of the specific binding for A_1, A_{2A}, A_3ARs, while for A_{2B}ARs in parentheses are shown the percentage of cyclic AMP production respect to NECA 1 μM. The table shows LMT497 did not show affinity to A_3AR. Compared to Cl-IB-MECA it had very little to no activity. To note, LMT497 did not show affinity for A1, A_{2A}, or A_{2B}ARs either.

Binding Assay

LMT497 showed an IC_{50} (μM) of 310 when observing the ADP-induced platelet in rats *in vitro*. LJ529 and clopidogrel showed an IC_{50} (μM) of 190.9 and 139.2 respectively. Requested and done by WhanInPharm. Co, Ltd. Central Research Center.

Table 1. Affinity and potency values to Adenosine receptors of LMT497

Compound	[^{3}H] CCPA binding hA$_1$CHO cells Ki (nM)	[^{3}H]CGS21680 binding hA$_{2A}$CHO cells Ki (nM)	[^{125}I] ABMECA binding hA$_3$CHO cells Ki (nM)	cAMP hA$_{2B}$CHO cells EC_{50} (nM)
LMT497	>1000 (15%)	>1000 (17%)	>1000 (35%)	>1000 (0%)
CL-IB-MECA	748±62	496±38	1.62±0.13	>1000 (9%)