

# **Product Introduction**

## Anacetrapib (MK-0859)

Anacetrapib (MK0859) is a potent, selective, reversible **rhCETP** and **mutant CETP(C13S)** inhibitor with **IC50** of 7.9 nM and 11.8 nM, increases HDL-C and decreases LDL-C, does not increase aldosterone or blood pressure. Phase 3.

#### Technical Data:

Molecular Weight (MW):	637.51	F = F $F = O = N$ $F = O = N$ $F = F$ $F = F$ $F = F$
Formula:	$C_{30}H_{25}F_{10}NO_3$	
Solubility (25°C)	DMSO 127 mg/mL	
* <1 mg/ml means slightly soluble or insoluble:	Water <1 mg/mL	
	Ethanol 127 mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder	
	6 months-80°C in DMSO	
CAS No.:	875446-37-0	

### **Biological Activity**

Anacetrapib is not only able to increase HDL-cholesterol, but also further decreases LDL-cholesterol when taken in combination with a statin. Anacetrapib dose-dependently and significantly decreases the transfer of CE from HDL3 to HDL2. Anacetrapib doesn't affect the amount of [<sup>14</sup>C]-dalcetrapibthiol bound to rhCETP. Anacetrapib decreases pre- $\beta$ -HDL formation by more than 46%. <sup>[1]</sup> Anacetrapib potently blocks CE and TG transfer in 95% human serum.<sup>[2]</sup>

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In a dyslipidemic hamster model, 60 mg/kg/day Anacetrapib for 2 weeks results in a 94% reduction in CETP activity and 47% increase in HDL-cholesterol compared with control animals; non-HDL-cholesterol concentrations are not affected. In addition, Anacetrapib promotes reverse cholesterol transport from macrophages, and leads to a 30% increase in fecal cholesterol content. HDL from Anacetrapib-treated hamsters reveals an increase in SR-B1- and ABCG1-mediated efflux compared with controls. <sup>[2]</sup> After oral administration of [<sup>14</sup>C]Anacetrapib at 10 mg/kg,  $\sim$  80 and 90% of the radioactive dose is recovered over 48 hous postdose from rats and monkeys, respectively. The majority of the administered radioactive dose is excreted unchanged in feces in both species. <sup>[3]</sup>

#### References

- [1] Niesor EJ, et al. J Lipid Res. 2010, 51(12), 3443-3454.
- [2] Ranalletta M, et al. J Lipid Res. 2010, 51(9), 2739-2752.
- [3] Tan EY, et al. Drug Metab Dispos. 2010, 38(3), 459-473.



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