

# Small Molecules

L755507

Activates  $\beta$ -3 adrenergic receptors

Catalog # 73992  
73994

5 mg  
10 mg



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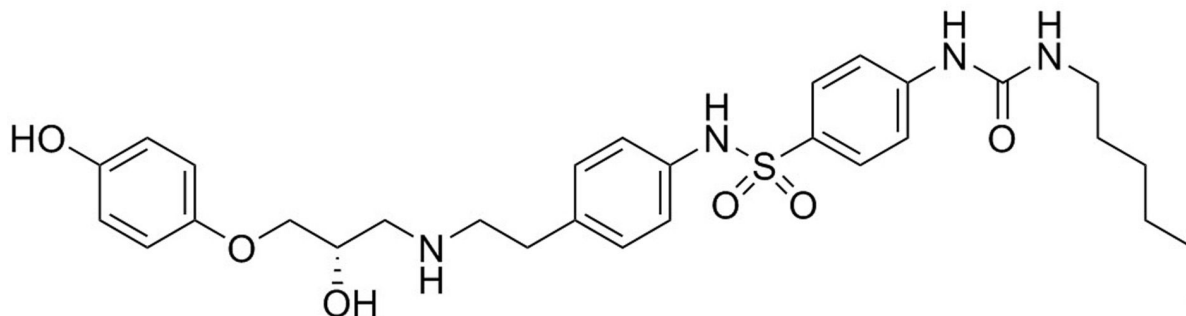
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## Product Description

L755507 is a potent and selective  $\beta$ -3 adrenergic receptor agonist that demonstrates over 440-fold selectivity over  $\beta$ -1- and  $\beta$ -2 binding (EC50 = 0.43, 580, and > 10,000 nM for activation of cloned human  $\beta$ -3-,  $\beta$ -2-, and  $\beta$ -1-adrenoreceptors, respectively; Parmee et al.).

Molecular Name:	L755507
Alternative Names:	Not applicable
CAS Number:	159182-43-1
Chemical Formula:	C <sub>30</sub> H <sub>40</sub> N <sub>4</sub> O <sub>6</sub> S
Molecular Weight:	584.7 g/mol
Purity:	≥ 98%
Chemical Name:	4-[[[(hexylamino)carbonyl]amino]-N-[4-[2-[[[(2S)-2-hydroxy-3-(4-hydroxyphenoxy)propyl]amino]ethyl]phenyl]-benzenesulfonamide

Structure:



## Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage store with a desiccant. For product expiry date, please contact techsupport@stemcell.com.
Solubility:	· DMSO ≤ 40 mM · Absolute ethanol ≤ 30 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 171 $\mu$ L of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

## Published Applications

### DIFFERENTIATION

- Stimulates lipolysis in human white adipose tissue (Fisher et al.).

### GENE EDITING

- Improves the efficiency of homology-directed repair in human induced-pluripotent stem cells following CRISPR editing (Yu et al.).

### METABOLISM

- Increases metabolism in rhesus monkeys (Fisher et al.).

## References

- Fisher MH et al. (1998) A selective human beta3 adrenergic receptor agonist increases metabolic rate in rhesus monkeys. *J Clin Invest* 101(11): 2387–93.
- Parmee ER et al. (1998) Discovery of L-755,507: a subnanomolar human beta 3 adrenergic receptor agonist. *Bioorg Med Chem Lett* 8(9): 1107–12.
- Yu C et al. (2015) Small molecules enhance CRISPR genome editing in pluripotent stem cells. *Cell Stem Cell* 16(2): 142–7.

## Related Small Molecules

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