# Small Molecules

**UM171**

Pyrimido-indole derivative that enhances HSC self-renewal in vitro

| | | |
|---|---|---|
| Catalog # | 72912 | 250 µg of active compound |
| | 72914 | 1 mg of active compound |

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## Product Description

UM171 is a pyrimido-[4,5-b]-indole derivative which enhances the self-renewal of human hematopoietic stem cells (HSCs) in vitro (Fares et al.).

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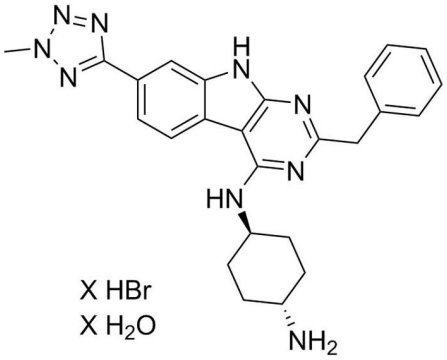
| Molecular Name: | UM171 |
| Alternative Names: | UM-171 |
| CAS Number: | Not applicable |
| Chemical Formula: | $C_{25}H_{27}N_9 \cdot X\ HBr\ [X\ H_2O]$ |
| Molecular Weight: | 453.54 g/mol (free base) |
| Purity: | > 95% |
| Chemical Name: | (1r,4r)-N¹-(2-benzyl-7-(2-methyl-2H-tetrazol-5-yl)-9H-pyrimido[4,5-b]indol-4-yl)cyclohexane-1,4-diamine |
| Structure: |  |



## Properties

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| Physical Appearance: | Yellow solid |
| Storage: | Product stable at room temperature (15 - 25°C) as supplied. Protect from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com. |
| Solubility: | · DMSO ≤ 20 mM<br>For example, to prepare a 1 mM stock solution in DMSO, dissolve 1 mg in 2.20 mL of fresh DMSO or dissolve 250 µg in 551 µL of fresh DMSO.<br><br>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.<br><br>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

MAINTENANCE AND SELF-RENEWAL
· Enhances human hematopoietic stem cell self-renewal in vitro. (Fares et al.).

## References

Fares I et al. (2014) Pyrimidoindole derivatives are agonists of human hematopoietic stem cell self-renewal. Science 345(6203): 1509–12.

## Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

This product is potentially hazardous. Please refer to the Safety Data Sheet (SDS).